GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 15, 2004, 07:25:43 ; Search time 60 Seconds
(without alignments)
1125.481 Million cell updates/sec

Title: US-09-620-955B-6
Perfect score: 1250
Sequence: 1 QVQLQESGGGLVQPGGSLRL.....CSSFANSGPLFGGGTKVTVL 239

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 1586107

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_29Jan04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1250	100.0	239	4	AAB69603	Aab69603 Huntingti
2	1110	88.8	254	5	ABP44972	Abp44972 Human BLy
3	1106	88.5	256	5	ABP44828	Abp44828 Human BLy
4	1097	87.8	252	5	ABP45616	Abp45616 Human BLy
5	1096	87.7	254	5	ABP44970	Abp44970 Human BLy
6	1095.5	87.6	241	5	ABP46044	Abp46044 Human BLy
7	1093	87.4	252	5	ABP44945	Abp44945 Human BLy
8	1089.5	87.2	251	5	ABP44944	Abp44944 Human BLy
9	1089.5	87.2	251	5	ABP45306	Abp45306 Human BLy
10	1088.5	87.1	251	5	ABP45103	Abp45103 Human BLy
11	1084.5	86.8	253	5	ABP44992	Abp44992 Human BLy
12	1082.5	86.6	251	5	ABP45321	Abp45321 Human BLy
13	1079	86.3	254	5	ABP45690	Abp45690 Human BLy
14	1079	86.3	254	5	ABP45748	Abp45748 Human BLy
15	1078	86.2	256	5	ABP45381	Abp45381 Human BLy
16	1077.5	86.2	253	5	ABP44978	Abp44978 Human BLy
17	1077	86.2	254	5	ABP44870	Abp44870 Human BLy
18	1073.5	85.9	253	5	ABP44996	Abp44996 Human BLy
19	1072	85.8	244	5	ABP45899	Abp45899 Human BLy
20	1067	85.4	254	5	ABP44966	Abp44966 Human BLy
21	1065	85.2	240	5	ABP46036	Abp46036 Human BLy
22	1065	85.2	254	5	ABP45417	Abp45417 Human BLy
23	1064.5	85.2	253	5	ABP45438	Abp45438 Human BLy
24	1063	85.0	254	5	ABP45064	Abp45064 Human BLy
25	1062	85.0	254	5	ABP45724	Abp45724 Human BLy
26	1061.5	84.9	251	5	ABP45594	Abp45594 Human BLy
27	1061.5	84.9	253	5	ABP45326	Abp45326 Human BLy
28	1061	84.9	246	5	ABP45303	Abp45303 Human BLy
29	1061	84.9	254	5	ABP45662	Abp45662 Human BLy
30	1058	84.6	240	5	ABP45887	Abp45887 Human BLy
31	1057	84.6	252	5	ABP45420	Abp45420 Human BLy
32	1056	84.5	252	5	ABP45679	Abp45679 Human BLy
33	1055	84.4	240	5	ABP45919	Abp45919 Human BLy
34	1055	84.4	246	5	ABP45313	Abp45313 Human BLy
35	1055	84.4	250	5	ABP44872	Abp44872 Human BLy
36	1053	84.2	246	5	ABP46066	Abp46066 Human BLy
37	1052.5	84.2	243	5	ABP44984	Abp44984 Human BLy
38	1052.5	84.2	247	5	ABP44904	Abp44904 Human BLy
39	1052	84.2	252	5	ABP45623	Abp45623 Human BLy
40	1051	84.1	248	5	ABP45771	Abp45771 Human BLy
41	1050.5	84.0	247	5	ABP44912	Abp44912 Human BLy
42	1050.5	84.0	247	6	AAO31142	Aao31142 Human CM0
43	1050	84.0	248	5	ABP45642	Abp45642 Human BLy
44	1049.5	84.0	251	5	ABP44914	Abp44914 Human BLy
45	1045.5	83.6	255	5	ABP45808	Abp45808 Human BLy

ALIGNMENTS

RESULT 1
AAB69603
ID AAB69603 standard; protein; 239 AA.
XX
AC AAB69603;
XX
DT 30-APR-2001 (first entry)
XX
DE Huntingtin intrabody alpha-Nt-HD-C4 sFv.
XX
KW Neurological disorder; Huntington's disease; Alzheimer's disease;
KW Parkinson's disease; prion disease; frontotemporal dementia;
KW amyotrophic lateral sclerosis; spinal and bulbar muscular atrophy;
KW dentatorubal-pallidoluysian atrophy; spinocerebellar ataxia type 1; SCA2;
KW SCA3; SCA4; SCA5; SCA6; SCA7; protein accumulation; intrabody.
XX
OS Unidentified.
XX
PN WO200106989-A2.
XX
PD 01-FEB-2001.
XX
PF 24-JUL-2000; 2000WO-US020131.
XX
PR 27-JUL-1999; 99US-0146047P.
PR 21-JUL-2000; 2000US-00620955.
XX
PA (HUST/) HUSTON J S.
PA (MESS/) MESSER A.
PA (LECB/) LECERF J.
XX
PI Huston JS, Messer A, Lecerf J;
XX
DR WPI; 2001-182700/18.
DR N-PSDB; AAF58707.
XX
PT Inhibiting intracellular polypeptide accumulation, useful for treating
PT neurological disorders, e.g. Alzheimer's disease, comprises contacting
PT the polypeptide with a specific intrabody.
XX
PS Claim 22; Page 95; 108pp; English.
XX
CC The present invention describes a method for inhibiting the formation of
CC aggregates of certain proteins, involving contacting the protein with a
CC binding molecule known as an intrabody. Proteins to be bound include
CC those associated with neurological disorders, and so the method can be
CC used in the prevention of diseases such as Alzheimer's, Parkinson's and
CC Huntington's diseases, prion disease, frontotemporal dementia,

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CC   amyotrophic lateral sclerosis, spinal and bulbar muscular atrophy,
CC   dentatorubal-pallidoluysian atrophy, spinocerebellar ataxia type 1
CC   (SCA1), SCA2, SCA3, SCA4, SCA5, SCA6 and SCA7
XX
SQ   Sequence 239 AA;

  Query Match             100.0%;  Score 1250;  DB 4;  Length 239;
  Best Local Similarity   100.0%;  Pred. No. 6.9e-81;
  Matches  239;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDLWGRGTLVTVSSGGGGS 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDLWGRGTLVTVSSGGGGS 120

Qy        121 GGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAPKLLI 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAPKLLI 180

Qy        181 YDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGPLFGGGTKVTVL 239
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 YDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGPLFGGGTKVTVL 239


RESULT 2
ABP44972
ID   ABP44972 standard; protein; 254 AA.
XX
AC   ABP44972;
XX
DT   19-AUG-2002  (first entry)
XX
DE   Human BLyS binding scFv SEQ ID 983.
XX
KW   BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW   tumour necrosis factor; B cell proliferation; B cell differentiation;
KW   immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW   antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW   systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW   common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200202641-A1.
XX
PD   10-JAN-2002.
XX
PF   15-JUN-2001; 2001WO-US019110.
XX
PR   16-JUN-2000; 2000US-0212210P.
PR   17-OCT-2000; 2000US-0240816P.
PR   16-MAR-2001; 2001US-0276248P.
PR   21-MAR-2001; 2001US-0277379P.
PR   25-MAY-2001; 2001US-0293499P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
PA   (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI   Ruben SM,  Barash SC,  Choi GH,  Vaughan T,  Hilbert D;
XX
DR   WPI; 2002-114799/15.
XX
PT   Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT   diagnosis and treatment of cancers and immune disorders.
XX
PS   Claim 1; Page 1574-1575; 3148pp; English.
XX
CC   This invention describes novel antibodies that immunospecifically bind to
CC   B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC   tumour necrosis factor (TNF) super family and induces B cell
CC   proliferation and differentiation. The antibodies of the invention have
CC   cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC   antirheumatic and antiAIDS activity and can be used in vaccines to
CC   inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC   and so may be used to detect and quantitate the presence of BLyS in
CC   biological samples and may be used in this way to diagnose disease
CC   associated with aberrant expression of BLyS. They may also be
CC   administered to treat diseases associated with aberrant BLyS expression
CC   and activity such as cancer, immune, and autoimmune disorders and
CC   diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC   immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC   acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC   the antibodies and fragments of the antibodies described in the method of
CC   the invention
XX
SQ   Sequence 254 AA;

  Query Match             88.8%;  Score 1110;  DB 5;  Length 254;
  Best Local Similarity   84.2%;  Pred. No. 6.1e-71;
  Matches  213;  Conservative   14;  Mismatches   12;  Indels   14;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||||||||:|||| ||||||||||||||:| ||||||||||||||||||||||||||||
Db          1 QVQLQESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----------YFDLWGR 107
              ||||||||||||||||||||||||||||||||||||||||:          ||| ||:
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAREEGFYDILTGYYGPGYFDYWGK 120

Qy        108 GTLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSW 167
              ||:|||||||||||||||||||| ||||||||||||||||||||||:| ||||||
Db        121 GTMVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSW 180

Qy        168 YQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANS 226
              |||:|||||||:||: | ||||:||||||||:|||||||||||||||||||:   |
Db        181 YQQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRS 240

Qy        227 GPLFGGGTKVTVL 239
                :||||||:|||
Db        241 TRVFGGGTKLTVL 253


RESULT 3
ABP44828
ID   ABP44828 standard; protein; 256 AA.
XX
AC   ABP44828;
XX
DT   19-AUG-2002  (first entry)
XX
DE   Human BLyS binding scFv SEQ ID 839.
XX
KW   BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW   tumour necrosis factor; B cell proliferation; B cell differentiation;
KW   immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW   antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW   systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW   common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200202641-A1.
XX
PD   10-JAN-2002.
XX
PF   15-JUN-2001; 2001WO-US019110.
XX
PR   16-JUN-2000; 2000US-0212210P.
PR   17-OCT-2000; 2000US-0240816P.
PR   16-MAR-2001; 2001US-0276248P.
PR   21-MAR-2001; 2001US-0277379P.
PR   25-MAY-2001; 2001US-0293499P.
XX
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PA (HUMA-) HUMAN GENOME SCI INC.
PA (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI Ruben SM, Barash SC, Choi GH, Vaughan T, Hilbert D;
XX
DR WPI; 2002-114799/15.
XX
PT Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT diagnosis and treatment of cancers and immune disorders.
XX
PS Claim 1; Page 1402-1403; 3148pp; English.
XX
CC This invention describes novel antibodies that immunospecifically bind to
CC B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC tumour necrosis factor (TNF) super family and induces B cell
CC proliferation and differentiation. The antibodies of the invention have
CC cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC antirheumatic and antiAIDS activity and can be used in vaccines to
CC inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC and so may be used to detect and quantitate the presence of BLyS in
CC biological samples and may be used in this way to diagnose disease
CC associated with aberrant expression of BLyS. They may also be
CC administered to treat diseases associated with aberrant BLyS expression
CC and activity such as cancer, immune, and autoimmune disorders and
CC diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC the antibodies and fragments of the antibodies described in the method of
CC the invention
XX
SQ Sequence 256 AA;

Query Match 88.5%; Score 1106; DB 5; Length 256;
Best Local Similarity 83.9%; Pred. No. 1.2e-70;
Matches 213; Conservative 12; Mismatches 13; Indels 16; Gaps 2;

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Qy          2 VQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYYA 61
              ||| :||||:|||||||||||||||||||| | ||||||||||||||||||||||||||
Db          2 VQLVQSGGGVVQPGGSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSNKYYA 61

Qy         62 DSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR---------------YFDLWG 106
              |||||||||||||||||||||||||||||||||||||||               | |:||
Db         62 DSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDREAYYDILTGYYLYYYYMDVWG 121

Qy        107 RGTLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVS 166
              ||| |||||||||||||||||||| ||||||||||||||||||||||:| |||||
Db        122 RGTTVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVS 181

Qy        167 WYQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-AN 225
              ||||:|||||||:||: | ||||:||||||||:||||||||||||||||||: .
Db        182 WYQQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTG 241

Qy        226 SGPLFGGGTKVTVL 239
              |  :|||||:|||
Db        242 STRVFGGGTKLTVL 255
```

RESULT 4
ABP45616
ID ABP45616 standard; protein; 252 AA.
XX
AC ABP45616;
XX
DT 19-AUG-2002 (first entry)
XX
DE Human BLyS binding scFv SEQ ID 1627.
XX
KW BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW tumour necrosis factor; B cell proliferation; B cell differentiation;
KW immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS Homo sapiens.
XX
PN WO200202641-A1.
XX
PD 10-JAN-2002.
XX
PF 15-JUN-2001; 2001WO-US019110.
XX
PR 16-JUN-2000; 2000US-0212210P.
PR 17-OCT-2000; 2000US-0240816P.
PR 16-MAR-2001; 2001US-0276248P.
PR 21-MAR-2001; 2001US-0277379P.
PR 25-MAY-2001; 2001US-0293499P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
PA (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI Ruben SM, Barash SC, Choi GH, Vaughan T, Hilbert D;
XX
DR WPI; 2002-114799/15.
XX
PT Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT diagnosis and treatment of cancers and immune disorders.
XX
PS Claim 1; Page 2344-2345; 3148pp; English.
XX
CC This invention describes novel antibodies that immunospecifically bind to
CC B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC tumour necrosis factor (TNF) super family and induces B cell
CC proliferation and differentiation. The antibodies of the invention have
CC cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC antirheumatic and antiAIDS activity and can be used in vaccines to
CC inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC and so may be used to detect and quantitate the presence of BLyS in
CC biological samples and may be used in this way to diagnose disease
CC associated with aberrant expression of BLyS. They may also be
CC administered to treat diseases associated with aberrant BLyS expression
CC and activity such as cancer, immune, and autoimmune disorders and
CC diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC the antibodies and fragments of the antibodies described in the method of
CC the invention
XX
SQ Sequence 252 AA;

Query Match 87.8%; Score 1097; DB 5; Length 252;
Best Local Similarity 84.5%; Pred. No. 5.1e-70;
Matches 212; Conservative 12; Mismatches 15; Indels 12; Gaps 2;

```
Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| :||||:|||| |||||||||||||| | |||||||||||||||||||||||||
Db          1 QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD-----------RYFDLWGRGT 109
              |||||||||||||||||||||||||||||||||||||||||           ||| ||:||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARSPGDDILTGYYKYYFDYWGQGT 120

Qy        110 LVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQ 169
              ||||||||||||||||||||| |||||||||||||||||||||||:| ||||||||
Db        121 LVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWYQ 180

Qy        170 QYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSGP 228
              |:||||||:||: | ||||:||||||||:||||||||||||||||||:   |
Db        181 QHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRSTR 240

Qy        229 LFGGGTKVTVL 239
              :||||||:|||
Db        241 VFGGGTKLTVL 251
```

RESULT 5

```
ABP44970
ID   ABP44970 standard; protein; 254 AA.
XX
AC   ABP44970;
XX
DT   19-AUG-2002  (first entry)
XX
DE   Human BLyS binding scFv SEQ ID 981.
XX
KW   BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW   tumour necrosis factor; B cell proliferation; B cell differentiation;
KW   immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW   antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW   systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW   common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200202641-A1.
XX
PD   10-JAN-2002.
XX
PF   15-JUN-2001; 2001WO-US019110.
XX
PR   16-JUN-2000; 2000US-0212210P.
PR   17-OCT-2000; 2000US-0240816P.
PR   16-MAR-2001; 2001US-0276248P.
PR   21-MAR-2001; 2001US-0277379P.
PR   25-MAY-2001; 2001US-0293499P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
PA   (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI   Ruben SM,  Barash SC,  Choi GH,  Vaughan T,  Hilbert D;
XX
DR   WPI; 2002-114799/15.
XX
PT   Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT   diagnosis and treatment of cancers and immune disorders.
XX
PS   Claim 1; Page 1572-1573; 3148pp; English.
XX
CC   This invention describes novel antibodies that immunospecifically bind to
CC   B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC   tumour necrosis factor (TNF) super family and induces B cell
CC   proliferation and differentiation. The antibodies of the invention have
CC   cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC   antirheumatic and antiAIDS activity and can be used in vaccines to
CC   inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC   and so may be used to detect and quantitate the presence of BLyS in
CC   biological samples and may be used in this way to diagnose disease
CC   associated with aberrant expression of BLyS. They may also be
CC   administered to treat diseases associated with aberrant BLyS expression
CC   and activity such as cancer, immune, and autoimmune disorders and
CC   diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC   immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC   acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC   the antibodies and fragments of the antibodies described in the method of
CC   the invention
XX
SQ   Sequence 254 AA;

  Query Match             87.7%;  Score 1096;  DB 5;  Length 254;
  Best Local Similarity   84.2%;  Pred. No. 6e-70;
  Matches  213;  Conservative   13;  Mismatches   13;  Indels   14;  Gaps    3;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| :||||:|||| |||||||||||||||| | ||||||||||||||||||||||||
Db          1 QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR-YFDL----------WGR 107
              |||||||||||||||||||||||||||| |||||||||| |:|:          |||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAGDTAVYYCARDRGYYDILTGYYRGHGMDVWGR 120

Qy        108 GTLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSW 167
              |||||||||||||||||||||||||| |||||||||||||||||||||||||:| ||||||
Db        121 GTLVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSW 180

Qy        168 YQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANS 226
              |||:|||||||:||: | ||||:|||||||||||:|||||||||||||||||:   |
Db        181 YQQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRS 240

Qy        227 GPLFGGGTKVTVL 239
                :||||||:|||
Db        241 TRVFGGGTKLTVL 253


RESULT 6
ABP46044
ID   ABP46044 standard; protein; 241 AA.
XX
AC   ABP46044;
XX
DT   19-AUG-2002  (first entry)
XX
DE   Human BLyS binding scFv SEQ ID 2055.
XX
KW   BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW   tumour necrosis factor; B cell proliferation; B cell differentiation;
KW   immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW   antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW   systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW   common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200202641-A1.
XX
PD   10-JAN-2002.
XX
PF   15-JUN-2001; 2001WO-US019110.
XX
PR   16-JUN-2000; 2000US-0212210P.
PR   17-OCT-2000; 2000US-0240816P.
PR   16-MAR-2001; 2001US-0276248P.
PR   21-MAR-2001; 2001US-0277379P.
PR   25-MAY-2001; 2001US-0293499P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
PA   (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI   Ruben SM,  Barash SC,  Choi GH,  Vaughan T,  Hilbert D;
XX
DR   WPI; 2002-114799/15.
XX
PT   Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT   diagnosis and treatment of cancers and immune disorders.
XX
PS   Claim 1; Page 2849-2850; 3148pp; English.
XX
CC   This invention describes novel antibodies that immunospecifically bind to
CC   B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC   tumour necrosis factor (TNF) super family and induces B cell
CC   proliferation and differentiation. The antibodies of the invention have
CC   cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC   antirheumatic and antiAIDS activity and can be used in vaccines to
CC   inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC   and so may be used to detect and quantitate the presence of BLyS in
CC   biological samples and may be used in this way to diagnose disease
CC   associated with aberrant expression of BLyS. They may also be
CC   administered to treat diseases associated with aberrant BLyS expression
CC   and activity such as cancer, immune, and autoimmune disorders and
CC   diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC   immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC   acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC   the antibodies and fragments of the antibodies described in the method of
```

```
C   the invention
X
Q   Sequence 241 AA;

 Query Match             87.6%;  Score 1095.5;  DB 5;  Length 241;
 Best Local Similarity   86.2%;  Pred. No. 6.2e-70;
 Matches  207;  Conservative   16;  Mismatches   16;  Indels    1;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| :||| :|||| |||||||||||:|||:| ||||||||||||||||||||||||
Db          1 QVQLVQSGGDVVQPGRSLRLSCAASGFTYSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDLWGRGTLVTVSSGGGGS 120
              |||||||||||||||||||||||||||||||||||||||||||  || ||:||||||||||||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDLDFDYWGQGTLVTVSSGGGGS 120

Qy        121 GGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAPKLLI 180
              |||||||||||| |||| | ||||||:||||||||:| ||||||||:|||||| :|
Db        121 GGGGSGGGGSQSVLTQPPSASGSPGQSVTISCTGTSSDVGGYNYVSWYQQHPGKAPKFMI 180

Qy        181 YDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFAN-SGPLFGGGTKVTVL 239
              |||| ||||:|||||||||:||||||||:||||||||||: : |  :||||||:|||
Db        181 YDVSKRPSGVSNRFSGSKSGNTASLTISGVQAEDEADYYCSSYTSASTVIFGGGTKLTVL 240


RESULT 7
ABP44945
ID   ABP44945 standard; protein; 252 AA.
XX
AC   ABP44945;
XX
DT   19-AUG-2002  (first entry)
XX
DE   Human BLyS binding scFv SEQ ID 956.
XX
KW   BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW   tumour necrosis factor; B cell proliferation; B cell differentiation;
KW   immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW   antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW   systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW   common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200202641-A1.
XX
PD   10-JAN-2002.
XX
PF   15-JUN-2001; 2001WO-US019110.
XX
PR   16-JUN-2000; 2000US-0212210P.
PR   17-OCT-2000; 2000US-0240816P.
PR   16-MAR-2001; 2001US-0276248P.
PR   21-MAR-2001; 2001US-0277379P.
PR   25-MAY-2001; 2001US-0293499P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
PA   (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI   Ruben SM,  Barash SC,  Choi GH,  Vaughan T,  Hilbert D;
XX
DR   WPI; 2002-114799/15.
XX
PT   Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT   diagnosis and treatment of cancers and immune disorders.
XX
PS   Claim 1; Page 1542-1543; 3148pp; English.
XX
CC   This invention describes novel antibodies that immunospecifically bind to
CC   B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC   tumour necrosis factor (TNF) super family and induces B cell
CC   proliferation and differentiation. The antibodies of the invention have
CC   cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC   antirheumatic and antiAIDS activity and can be used in vaccines to
CC   inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC   and so may be used to detect and quantitate the presence of BLyS in
CC   biological samples and may be used in this way to diagnose disease
CC   associated with aberrant expression of BLyS. They may also be
CC   administered to treat diseases associated with aberrant BLyS expression
CC   and activity such as cancer, immune, and autoimmune disorders and
CC   diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC   immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC   acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC   the antibodies and fragments of the antibodies described in the method of
CC   the invention
XX
SQ   Sequence 252 AA;

  Query Match             87.4%;  Score 1093;  DB 5;  Length 252;
  Best Local Similarity   84.1%;  Pred. No. 9.8e-70;
  Matches  211;  Conservative   12;  Mismatches   16;  Indels   12;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| |||||:|||||||||||||||||||| | ||||||||||||||||||:|||
Db          1 QVQLVESGGGVVQPGGSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSDKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----------YFDLWGRGT 109
              |||||||||||||||||||||||||||||||||||||||||          ||| ||:||
Db         61 EDSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDSGGDILTGYYMPYFDYWGQGT 120

Qy        110 LVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQ 169
              |||||||||||||||||||||| ||||||||||||||||||||||:| ||||||||
Db        121 TVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWYQ 180

Qy        170 QYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSGP 228
              |:|||||||:||: | ||||:||||||||||:|||||||| ||||||||||:   |
Db        181 QHPGKAPKLMIYEGSRRPSGVSNRFSGSKSGNTASLTISGPQAEDEADYYCSSYTTRSTR 240

Qy        229 LFGGGTKVTVL 239
              :||||||:|||
Db        241 VFGGGTKLTVL 251


RESULT 8
ABP44944
ID   ABP44944 standard; protein; 251 AA.
XX
AC   ABP44944;
XX
DT   19-AUG-2002  (first entry)
XX
DE   Human BLyS binding scFv SEQ ID 955.
XX
KW   BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW   tumour necrosis factor; B cell proliferation; B cell differentiation;
KW   immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW   antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW   systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW   common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200202641-A1.
XX
PD   10-JAN-2002.
XX
PF   15-JUN-2001; 2001WO-US019110.
XX
PR   16-JUN-2000; 2000US-0212210P.
PR   17-OCT-2000; 2000US-0240816P.
PR   16-MAR-2001; 2001US-0276248P.
PR   21-MAR-2001; 2001US-0277379P.
PR   25-MAY-2001; 2001US-0293499P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
PA   (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
```

XX
PI Ruben SM, Barash SC, Choi GH, Vaughan T, Hilbert D;
XX
DR WPI; 2002-114799/15.
XX
PT Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT diagnosis and treatment of cancers and immune disorders.
XX
PS Claim 1; Page 1541-1542; 3148pp; English.
XX
CC This invention describes novel antibodies that immunospecifically bind to
CC B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC tumour necrosis factor (TNF) super family and induces B cell
CC proliferation and differentiation. The antibodies of the invention have
CC cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC antirheumatic and antiAIDS activity and can be used in vaccines to
CC inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC and so may be used to detect and quantitate the presence of BLyS in
CC biological samples and may be used in this way to diagnose disease
CC associated with aberrant expression of BLyS. They may also be
CC administered to treat diseases associated with aberrant BLyS expression
CC and activity such as cancer, immune, and autoimmune disorders and
CC diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC the antibodies and fragments of the antibodies described in the method of
CC the invention
XX
SQ Sequence 251 AA;

Query Match 87.2%; Score 1089.5; DB 5; Length 251;
Best Local Similarity 83.6%; Pred. No. 1.7e-69;
Matches 209; Conservative 14; Mismatches 16; Indels 11; Gaps 2;

```
Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||:|||| |||||||||||||||| | ||||||||||||||:| |||| |||
Db          1 EVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVALIWYDGSKKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----------YFDLWGRGTL 110
              |||||||||:|||||||||||||||||||||||||||||           |||||||||:
Db         61 ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAVYYCARSHYDILTGLNYWYFDLWGRGTM 120

Qy        111 VTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQ 170
              |||||||||||||||||||| ||||||||||||||||||||||||:| |||||||||
Db        121 VTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWYQQ 180

Qy        171 YPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSGPL 229
              :|||||||:||: | ||||:||||||||||:||||||||||||||||||:   |  :
Db        181 HPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRSTRV 240

Qy        230 FGGGTKVTVL 239
              ||||||:|||
Db        241 FGGGTKLTVL 250
```

RESULT 9
ABP45306
ID ABP45306 standard; protein; 251 AA.
XX
AC ABP45306;
XX
DT 19-AUG-2002 (first entry)
XX
DE Human BLyS binding scFv SEQ ID 1317.
XX
KW BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW tumour necrosis factor; B cell proliferation; B cell differentiation;
KW immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS Homo sapiens.

XX
PN WO200202641-A1.
XX
PD 10-JAN-2002.
XX
PF 15-JUN-2001; 2001WO-US019110.
XX
PR 16-JUN-2000; 2000US-0212210P.
PR 17-OCT-2000; 2000US-0240816P.
PR 16-MAR-2001; 2001US-0276248P.
PR 21-MAR-2001; 2001US-0277379P.
PR 25-MAY-2001; 2001US-0293499P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
PA (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI Ruben SM, Barash SC, Choi GH, Vaughan T, Hilbert D;
XX
DR WPI; 2002-114799/15.
XX
PT Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT diagnosis and treatment of cancers and immune disorders.
XX
PS Claim 1; Page 1974-1975; 3148pp; English.
XX
CC This invention describes novel antibodies that immunospecifically bind to
CC B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC tumour necrosis factor (TNF) super family and induces B cell
CC proliferation and differentiation. The antibodies of the invention have
CC cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC antirheumatic and antiAIDS activity and can be used in vaccines to
CC inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC and so may be used to detect and quantitate the presence of BLyS in
CC biological samples and may be used in this way to diagnose disease
CC associated with aberrant expression of BLyS. They may also be
CC administered to treat diseases associated with aberrant BLyS expression
CC and activity such as cancer, immune, and autoimmune disorders and
CC diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC the antibodies and fragments of the antibodies described in the method of
CC the invention
XX
SQ Sequence 251 AA;

Query Match 87.2%; Score 1089.5; DB 5; Length 251;
Best Local Similarity 83.6%; Pred. No. 1.7e-69;
Matches 209; Conservative 14; Mismatches 16; Indels 11; Gaps 2;

```
Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |: |:|||||:|||| |||||||||||||||| | ||||||||||||||:| |||| |||
Db          1 QITLKESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVALIWYDGSKKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----------YFDLWGRGTL 110
              |||||||||:|||||||||||||||||||||||||||||           ||||||||||
Db         61 ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAVYYCARSHYDILTRLNYWYFDLWGRGTL 120

Qy        111 VTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQ 170
              |||||||||||||||||||| ||||||||||||||||||||||||:| |||||||||
Db        121 VTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWYQQ 180

Qy        171 YPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSGPL 229
              :|||||||:||: | ||||:||||||||||:||||||||||||||||||:   |  :
Db        181 HPGKAPKLVIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRSTRV 240

Qy        230 FGGGTKVTVL 239
              ||||||:|||
Db        241 FGGGTKLTVL 250
```

RESULT 10
ABP45103
ID ABP45103 standard; protein; 251 AA.

```
XX
AC   ABP45103;
XX
DT   19-AUG-2002  (first entry)
XX
DE   Human BLyS binding scFv SEQ ID 1114.
XX
KW   BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW   tumour necrosis factor; B cell proliferation; B cell differentiation;
KW   immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW   antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW   systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW   common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200202641-A1.
XX
PD   10-JAN-2002.
XX
PF   15-JUN-2001; 2001WO-US019110.
XX
PR   16-JUN-2000; 2000US-0212210P.
PR   17-OCT-2000; 2000US-0240816P.
PR   16-MAR-2001; 2001US-0276248P.
PR   21-MAR-2001; 2001US-0277379P.
PR   25-MAY-2001; 2001US-0293499P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
PA   (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI   Ruben SM,  Barash SC,  Choi GH,  Vaughan T,  Hilbert D;
XX
DR   WPI; 2002-114799/15.
XX
PT   Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT   diagnosis and treatment of cancers and immune disorders.
XX
PS   Claim 1; Page 1731-1732; 3148pp; English.
XX
CC   This invention describes novel antibodies that immunospecifically bind to
CC   B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC   tumour necrosis factor (TNF) super family and induces B cell
CC   proliferation and differentiation. The antibodies of the invention have
CC   cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC   antirheumatic and antiAIDS activity and can be used in vaccines to
CC   inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC   and so may be used to detect and quantitate the presence of BLyS in
CC   biological samples and may be used in this way to diagnose disease
CC   associated with aberrant expression of BLyS. They may also be
CC   administered to treat diseases associated with aberrant BLyS expression
CC   and activity such as cancer, immune, and autoimmune disorders and
CC   diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC   immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC   acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC   the antibodies and fragments of the antibodies described in the method of
CC   the invention
XX
SQ   Sequence 251 AA;

  Query Match             87.1%;  Score 1088.5;  DB 5;  Length 251;
  Best Local Similarity   83.2%;  Pred. No. 2e-69;
  Matches  208;  Conservative   16;  Mismatches   15;  Indels   11;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||:|||||||||||||||||| :||:| |||||||||:|||||||||| |||
Db          1 EVQLVESGGGVVQPGGSLRLSCAASGFTVNSYAMHWVRQAPGKGLQWVAVISYDGSKKYY 60

Qy         61 ADSVKGRPTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----------YFDLWGRGTL 110
              |||||||||:|||||||||||||||||||||||||||||          ||||||:||
Db         61 ADSVKGRPTVSRDNSKNTLYLQMNSLRAEDTAVYYCARSHYDILTGLNYWYFDLWGQGTT 120

Qy        111 VTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQ 170
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||:| |||||||||
Db        121 VTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWYQQ 180

Qy        171 YPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSGPL 229
              :|||||||:||: | ||||:||||||||||:|||||||||||||||||||||:   |  :
Db        181 HPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRSTRV 240

Qy        230 FGGGTKVTVL 239
              ||||||:|||
Db        241 FGGGTKLTVL 250


RESULT 11
ABP44992
ID   ABP44992 standard; protein; 253 AA.
XX
AC   ABP44992;
XX
DT   19-AUG-2002  (first entry)
XX
DE   Human BLyS binding scFv SEQ ID 1003.
XX
KW   BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW   tumour necrosis factor; B cell proliferation; B cell differentiation;
KW   immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW   antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW   systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW   common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200202641-A1.
XX
PD   10-JAN-2002.
XX
PF   15-JUN-2001; 2001WO-US019110.
XX
PR   16-JUN-2000; 2000US-0212210P.
PR   17-OCT-2000; 2000US-0240816P.
PR   16-MAR-2001; 2001US-0276248P.
PR   21-MAR-2001; 2001US-0277379P.
PR   25-MAY-2001; 2001US-0293499P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
PA   (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI   Ruben SM,  Barash SC,  Choi GH,  Vaughan T,  Hilbert D;
XX
DR   WPI; 2002-114799/15.
XX
PT   Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT   diagnosis and treatment of cancers and immune disorders.
XX
PS   Claim 1; Page 1598-1599; 3148pp; English.
XX
CC   This invention describes novel antibodies that immunospecifically bind to
CC   B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC   tumour necrosis factor (TNF) super family and induces B cell
CC   proliferation and differentiation. The antibodies of the invention have
CC   cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC   antirheumatic and antiAIDS activity and can be used in vaccines to
CC   inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC   and so may be used to detect and quantitate the presence of BLyS in
CC   biological samples and may be used in this way to diagnose disease
CC   associated with aberrant expression of BLyS. They may also be
CC   administered to treat diseases associated with aberrant BLyS expression
CC   and activity such as cancer, immune, and autoimmune disorders and
CC   diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC   immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC   acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC   the antibodies and fragments of the antibodies described in the method of
CC   the invention
XX
```

```
SQ   Sequence 253 AA;

  Query Match             86.8%;  Score 1084.5;  DB 5;  Length 253;
  Best Local Similarity   82.9%;  Pred. No. 3.9e-69;
  Matches  209;  Conservative   14;  Mismatches   16;  Indels   13;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||||||||||||||||||||||||||||||||||| | |||||||||||||| |  ||| |||
Db          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYWMGWVRQAPGKGLEWVANIKQDGSEKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDL------------WGRG 108
              ||||||||||||||:||:|||||||||||||||||||: :|:            ||||
Db         61 VDSVKGRFTISRDNAKNSLYLQMNSLRAEDTAVYYCARDQQYDILTGYYIHYGMDVWGRG 120

Qy        109 TLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWY 168
              |||||||||||||||||||||| |||||||||||||||||||||:| ||||||||
Db        121 TLVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWY 180

Qy        169 QQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSG 227
              ||:||||||:||: | ||||:||||||||||:||||||||||||||||||:   |
Db        181 QQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRST 240

Qy        228 PLFGGGTKVTVL 239
              :||||||:|||
Db        241 RVFGGGTKLTVL 252


RESULT 12
ABP45321
ID   ABP45321 standard; protein; 251 AA.
XX
AC   ABP45321;
XX
DT   19-AUG-2002  (first entry)
XX
DE   Human BLyS binding scFv SEQ ID 1332.
XX
KW   BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW   tumour necrosis factor; B cell proliferation; B cell differentiation;
KW   immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW   antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW   systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW   common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200202641-A1.
XX
PD   10-JAN-2002.
XX
PF   15-JUN-2001; 2001WO-US019110.
XX
PR   16-JUN-2000; 2000US-0212210P.
PR   17-OCT-2000; 2000US-0240816P.
PR   16-MAR-2001; 2001US-0276248P.
PR   21-MAR-2001; 2001US-0277379P.
PR   25-MAY-2001; 2001US-0293499P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
PA   (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI   Ruben SM,  Barash SC,  Choi GH,  Vaughan T,  Hilbert D;
XX
DR   WPI; 2002-114799/15.
XX
PT   Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT   diagnosis and treatment of cancers and immune disorders.
XX
PS   Claim 1; Page 1992-1993; 3148pp; English.
XX
CC   This invention describes novel antibodies that immunospecifically bind to
CC   B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC   tumour necrosis factor (TNF) super family and induces B cell
CC   proliferation and differentiation. The antibodies of the invention have
CC   cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC   antirheumatic and antiAIDS activity and can be used in vaccines to
CC   inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC   and so may be used to detect and quantitate the presence of BLyS in
CC   biological samples and may be used in this way to diagnose disease
CC   associated with aberrant expression of BLyS. They may also be
CC   administered to treat diseases associated with aberrant BLyS expression
CC   and activity such as cancer, immune, and autoimmune disorders and
CC   diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC   immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC   acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC   the antibodies and fragments of the antibodies described in the method of
CC   the invention
XX
SQ   Sequence 251 AA;

  Query Match             86.6%;  Score 1082.5;  DB 5;  Length 251;
  Best Local Similarity   83.2%;  Pred. No. 5.4e-69;
  Matches  208;  Conservative   14;  Mismatches   17;  Indels   11;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| :||||:|||| |||||||||||||||| | ||||||||||||:| |||| |||
Db          1 EVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVALIWYDGSKKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----------YFDLWGRGTL 110
              |||||||||||||||||:|||||||||||| |||||             |||||||||
Db         61 ADSVKGRFTISRDNSKNTVYLQMNSLRAEDTGVYYCARSHYDILTGLNYWYFDLWGRGTL 120

Qy        111 VTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQ 170
              |||||||||||||||||||| ||||||||||||||||||||:| |||||||||
Db        121 VTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWYQQ 180

Qy        171 YPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSGPL 229
              :|||||||:||: | ||||:||||||||||:||||||||||||||||||:   |  :
Db        181 HPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRSTRV 240

Qy        230 FGGGTKVTVL 239
              ||||||:|||
Db        241 FGGGTKLTVL 250


RESULT 13
ABP45690
ID   ABP45690 standard; protein; 254 AA.
XX
AC   ABP45690;
XX
DT   19-AUG-2002  (first entry)
XX
DE   Human BLyS binding scFv SEQ ID 1701.
XX
KW   BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW   tumour necrosis factor; B cell proliferation; B cell differentiation;
KW   immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW   antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW   systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW   common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200202641-A1.
XX
PD   10-JAN-2002.
XX
PF   15-JUN-2001; 2001WO-US019110.
XX
PR   16-JUN-2000; 2000US-0212210P.
PR   17-OCT-2000; 2000US-0240816P.
PR   16-MAR-2001; 2001US-0276248P.
PR   21-MAR-2001; 2001US-0277379P.
PR   25-MAY-2001; 2001US-0293499P.
XX
```

```
PA   (HUMA-) HUMAN GENOME SCI INC.
PA   (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI   Ruben SM,  Barash SC,  Choi GH,  Vaughan T,  Hilbert D;
XX
DR   WPI; 2002-114799/15.
XX
PT   Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT   diagnosis and treatment of cancers and immune disorders.
XX
PS   Claim 1; Page 2432-2433; 3148pp; English.
XX
CC   This invention describes novel antibodies that immunospecifically bind to
CC   B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC   tumour necrosis factor (TNF) super family and induces B cell
CC   proliferation and differentiation. The antibodies of the invention have
CC   cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC   antirheumatic and antiAIDS activity and can be used in vaccines to
CC   inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC   and so may be used to detect and quantitate the presence of BLyS in
CC   biological samples and may be used in this way to diagnose disease
CC   associated with aberrant expression of BLyS. They may also be
CC   administered to treat diseases associated with aberrant BLyS expression
CC   and activity such as cancer, immune, and autoimmune disorders and
CC   diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC   immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC   acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC   the antibodies and fragments of the antibodies described in the method of
CC   the invention
XX
SQ   Sequence 254 AA;

  Query Match             86.3%;  Score 1079;  DB 5;  Length 254;
  Best Local Similarity   81.8%;  Pred. No. 9.7e-69;
  Matches  207;  Conservative   18;  Mismatches   14;  Indels   14;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||||||||||||:|||||||||||||||||||:|||||||||||||||: || |`: ||
Db          1 QVQLQESGGGLVKPGGSLRLSCAASGFTFSSYAMSWVRQAPGKGLEWVSAISGSGGSTYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYF------------DLWGR 107
              ||||||||||||||||||||||||||||||||||:|: :             |:|||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAKDQTYYDILTGHYYYYGMDVWGR 120

Qy        108 GTLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSW 167
              ||:|||||||||||||||||||| ||||||||||||||||||||:| ||||||
Db        121 GTMVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSW 180

Qy        168 YQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANS 226
              |||:|||||||:|: | ||||:||||||||:|||||||||||||:   |
Db        181 YQQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRS 240

Qy        227 GPLFGGGTKVTVL 239
                :||||||:|||
Db        241 TRVFGGGTKLTVL 253


RESULT 14
ABP45748
ID   ABP45748 standard; protein; 254 AA.
XX
AC   ABP45748;
XX
DT   19-AUG-2002  (first entry)
XX
DE   Human BLyS binding scFv SEQ ID 1759.
XX
KW   BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW   tumour necrosis factor; B cell proliferation; B cell differentiation;
KW   immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW   antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW   systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW   common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200202641-A1.
XX
PD   10-JAN-2002.
XX
PF   15-JUN-2001; 2001WO-US019110.
XX
PR   16-JUN-2000; 2000US-0212210P.
PR   17-OCT-2000; 2000US-0240816P.
PR   16-MAR-2001; 2001US-0276248P.
PR   21-MAR-2001; 2001US-0277379P.
PR   25-MAY-2001; 2001US-0293499P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
PA   (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI   Ruben SM,  Barash SC,  Choi GH,  Vaughan T,  Hilbert D;
XX
DR   WPI; 2002-114799/15.
XX
PT   Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT   diagnosis and treatment of cancers and immune disorders.
XX
PS   Claim 1; Page 2501-2502; 3148pp; English.
XX
CC   This invention describes novel antibodies that immunospecifically bind to
CC   B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC   tumour necrosis factor (TNF) super family and induces B cell
CC   proliferation and differentiation. The antibodies of the invention have
CC   cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC   antirheumatic and antiAIDS activity and can be used in vaccines to
CC   inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC   and so may be used to detect and quantitate the presence of BLyS in
CC   biological samples and may be used in this way to diagnose disease
CC   associated with aberrant expression of BLyS. They may also be
CC   administered to treat diseases associated with aberrant BLyS expression
CC   and activity such as cancer, immune, and autoimmune disorders and
CC   diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC   immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC   acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC   the antibodies and fragments of the antibodies described in the method of
CC   the invention
XX
SQ   Sequence 254 AA;

  Query Match             86.3%;  Score 1079;  DB 5;  Length 254;
  Best Local Similarity   82.2%;  Pred. No. 9.7e-69;
  Matches  208;  Conservative   16;  Mismatches   15;  Indels   14;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| :||||:|||| |||||||||||||||| | |||||||||||||||||||| |||
Db          1 QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSIKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDL------------WGR 107
              ||||:||||||||||||||||||||||||||||||:  :|:           |||
Db         61 ADSVRGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAREGSYDILTGYYVGVGRMDVWGR 120

Qy        108 GTLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSW 167
              ||:|||||||||||||||||||| ||||||||||||||||||||:| ||||||
Db        121 GTMVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSW 180

Qy        168 YQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANS 226
              |||:|||||||:|: | ||||:||||||||:|||||||||||||:   |
Db        181 YQQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRS 240

Qy        227 GPLFGGGTKVTVL 239
                :||||||:|||
Db        241 TRVFGGGTKLTVL 253


RESULT 15
```

ABP45381
ID ABP45381 standard; protein; 256 AA.
XX
AC ABP45381;
XX
DT 19-AUG-2002 (first entry)
XX
DE Human BLyS binding scFv SEQ ID 1392.
XX
KW BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW tumour necrosis factor; B cell proliferation; B cell differentiation;
KW immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS Homo sapiens.
XX
PN WO200202641-A1.
XX
PD 10-JAN-2002.
XX
PF 15-JUN-2001; 2001WO-US019110.
XX
PR 16-JUN-2000; 2000US-0212210P.
PR 17-OCT-2000; 2000US-0240816P.
PR 16-MAR-2001; 2001US-0276248P.
PR 21-MAR-2001; 2001US-0277379P.
PR 25-MAY-2001; 2001US-0293499P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
PA (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI Ruben SM, Barash SC, Choi GH, Vaughan T, Hilbert D;
XX
DR WPI; 2002-114799/15.
XX
PT Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT diagnosis and treatment of cancers and immune disorders.
XX
PS Claim 1; Page 2064-2065; 3148pp; English.
XX
CC This invention describes novel antibodies that immunospecifically bind to
CC B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC tumour necrosis factor (TNF) super family and induces B cell
CC proliferation and differentiation. The antibodies of the invention have
CC cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC antirheumatic and antiAIDS activity and can be used in vaccines to
CC inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC and so may be used to detect and quantitate the presence of BLyS in
CC biological samples and may be used in this way to diagnose disease
CC associated with aberrant expression of BLyS. They may also be
CC administered to treat diseases associated with aberrant BLyS expression
CC and activity such as cancer, immune, and autoimmune disorders and
CC diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC the antibodies and fragments of the antibodies described in the method of
CC the invention
XX
SQ Sequence 256 AA;

Query Match 86.2%; Score 1078; DB 5; Length 256;
Best Local Similarity 81.2%; Pred. No. 1.1e-68;
Matches 207; Conservative 18; Mismatches 14; Indels 16; Gaps 2;

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Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| :|||||||||||||||||||||||:| |||||||||||||: || | :|||
Db          1 QVQLVQSGGGLVQPGGSLRLSCAASGFTFSNYDMSWVRQAPGKGLEWVSGISGSGGSKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRY--------------FDLW 105
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Qy        106 GRGTLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYV 165
              |:|||||||||||||||||||||||||| ||||||||||||||||||||||||||:| ||||
Db        121 GQGTLVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYV 180

Qy        166 SWYQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-A 224
              |||||:|||||||:||: | ||||:||||||||||:||||||||||||||||||||:
Db        181 SWYQQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTT 240

Qy        225 NSGPLFGGGTKVTVL 239
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Db        241 RSTRVFGGGTKLTVL 255
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Search completed: March 15, 2004, 07:29:36
Job time : 62 secs

OM protein - protein search, using sw model

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(without alignments)
560.846 Million cell updates/sec

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Perfect score: 1250
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Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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6: /cgn2_6/ptodata/2/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1015.5	81.2	310	4	US-09-079-029-11	Sequence 11, Appl
2	906	72.5	244	4	US-08-918-148-79	Sequence 79, Appl
3	902.5	72.2	312	4	US-09-079-029-10	Sequence 10, Appl
4	897.5	71.8	249	4	US-10-039-785-53	Sequence 53, Appl
5	860.5	68.8	249	4	US-08-918-148-74	Sequence 74, Appl
6	860	68.8	309	4	US-09-079-029-9	Sequence 9, Appli
7	855.5	68.4	334	4	US-09-646-028-53	Sequence 53, Appl
8	855.5	68.4	339	4	US-09-646-028-55	Sequence 55, Appl
9	855.5	68.4	348	4	US-09-646-028-51	Sequence 51, Appl
10	850.5	68.0	245	4	US-10-039-785-43	Sequence 43, Appl
11	839.5	67.2	245	4	US-10-039-785-47	Sequence 47, Appl
12	839.5	67.2	245	4	US-10-039-785-51	Sequence 51, Appl
13	838.5	67.1	245	4	US-08-918-148-75	Sequence 75, Appl
14	837.5	67.0	245	4	US-08-918-148-76	Sequence 76, Appl
15	836.5	66.9	245	4	US-08-918-148-78	Sequence 78, Appl
16	834.5	66.8	245	4	US-10-039-785-52	Sequence 52, Appl
17	830.5	66.4	245	4	US-10-039-785-46	Sequence 46, Appl
18	829.5	66.4	245	4	US-10-039-785-42	Sequence 42, Appl
19	829.5	66.4	245	4	US-10-039-785-45	Sequence 45, Appl
20	820.5	65.6	245	4	US-10-039-785-49	Sequence 49, Appl
21	817.5	65.4	280	3	US-09-260-527-1	Sequence 1, Appli
22	817.5	65.4	281	4	US-09-025-769B-178	Sequence 178, App
23	815	65.2	244	4	US-08-918-148-77	Sequence 77, Appl
24	808.5	64.7	245	4	US-10-039-785-48	Sequence 48, Appl
25	785	62.8	236	2	US-08-190-199A-65	Sequence 65, Appl
26	782	62.6	255	4	US-09-553-498-8	Sequence 8, Appli
27	782	62.6	255	4	US-09-618-869-8	Sequence 8, Appli
28	775.5	62.0	258	2	US-08-665-202-5	Sequence 5, Appli
29	775.5	62.0	258	4	US-09-315-574-5	Sequence 5, Appli
30	773.5	61.9	284	3	US-08-564-164A-2	Sequence 2, Appli
31	773	61.8	240	2	US-08-956-047-25	Sequence 25, Appl
32	770	61.6	301	2	US-08-661-052-14	Sequence 14, Appl
33	770	61.6	301	3	US-09-188-082-14	Sequence 14, Appl
34	770	61.6	301	4	US-09-364-088-14	Sequence 14, Appl
35	770	61.6	301	4	US-09-102-716-14	Sequence 14, Appl
36	770	61.6	553	2	US-08-661-052-16	Sequence 16, Appl
37	770	61.6	553	3	US-09-188-082-16	Sequence 16, Appl
38	770	61.6	553	4	US-09-364-088-16	Sequence 16, Appl
39	770	61.6	553	4	US-09-102-716-16	Sequence 16, Appl
40	757.5	60.6	282	2	US-08-860-174A-10	Sequence 10, Appl
41	754.5	60.4	240	1	US-08-488-113B-148	Sequence 148, App
42	754.5	60.4	240	1	US-08-477-484B-148	Sequence 148, App
43	754.5	60.4	240	2	US-08-646-360-148	Sequence 148, App
44	754.5	60.4	240	3	US-08-839-765-148	Sequence 148, App
45	754.5	60.4	240	3	US-09-136-389-148	Sequence 148, App

ALIGNMENTS

RESULT 1
US-09-079-029-11
; Sequence 11, Application US/09079029
; Patent No. 6342369
; GENERAL INFORMATION:
; APPLICANT: Adams, Camilia W.
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Chuntharapai, Anan
; APPLICANT: Kim, Kyung J.
; TITLE OF INVENTION: Apo-2 Receptor
; NUMBER OF SEQUENCES: 14
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Genentech, Inc.
; STREET: 1 DNA Way
; CITY: South San Francisco
; STATE: California
; COUNTRY: USA
; ZIP: 94080
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: WinPatin (Genentech)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/079,029
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Marschang, Diane L.
; REGISTRATION NUMBER: 35,600
; REFERENCE/DOCKET NUMBER: P1101R2
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650/225-5416
; TELEFAX: 650/952-9881
; INFORMATION FOR SEQ ID NO: 11:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 310 amino acids
; TYPE: Amino Acid
; TOPOLOGY: Linear
US-09-079-029-11

Query Match 81.2%; Score 1015.5; DB 4; Length 310;
Best Local Similarity 80.7%; Pred. No. 1.1e-68;
Matches 197; Conservative 16; Mismatches 26; Indels 5; Gaps 2;

```
Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| :||||:|||| |||||||||| |||| | ||||||||||||||| | ||| ||||
Db         40 QVQLVQSGGGVVQPGRSLRLSCAASGFIFSSYGMHWVRQAPGKGLEWVAGIFYDGGNKYY 99

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR---YFDLWGRGTLVTVSSGG 117
```

```
                ||||||||||||||||||||||||||||||||||||||||||||||||  | |:||:|| |||||||
Db        100 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRGYYYMDVWGKGTTVTVSSGG 159

Qy        118 GGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAPK 177
                |||||||||||||||| |||| ||||:||| :|||||| ||:||| : | |||| || |||
Db        160 GGSGGGGSGGGGSQSVLTQPPSVSGAPGQRVTISCTGRSSNIGAGHDVHWYQQLPGTAPK 219

Qy        178 LLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANS--GPLFGGGTK 235
                ||||| |||||||: :|||||:|| :||| |:|||||||||||| |: :|  | :||||||
Db        220 LLIYDDSNRPSGVPDRFSGSRSGTSASLAITGLQAEDEADYYCQSYDSSLRGSVFGGGTK 279

Qy        236 VTVL 239
                ||||
Db        280 VTVL 283


RESULT 2
US-08-918-148-79
; Sequence 79, Application US/08918148A
; Patent No. 6342220
; GENERAL INFORMATION:
;  APPLICANT: Adams, Camellia
;  APPLICANT: W.
;  APPLICANT: Carter, Paul J.
;  APPLICANT: Fendly, Brian M.
;  APPLICANT: Gurney, Austin L.
;  TITLE OF INVENTION: Agonist Antibodies
;  FILE REFERENCE: P0979
;  CURRENT APPLICATION NUMBER: US/08/918,148A
;  CURRENT FILING DATE: 1997-08-25
;  NUMBER OF SEQ ID NOS: 79
; SEQ ID NO 79
;   LENGTH: 244
;   TYPE: PRT
;   ORGANISM: artificial
US-08-918-148-79

  Query Match             72.5%;  Score 906;  DB 4;  Length 244;
  Best Local Similarity   72.5%;  Pred. No. 1.3e-60;
  Matches  174;  Conservative   24;  Mismatches   40;  Indels    2;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
                |||||:|| |||:|  :| |:|  || : |||  ||:|| |||||||:  | | ||   |
Db          3 QVQLQQSGPGLVKPSETLSLTCTVSGDSISSYYWSWIRQPPGKGLEWIGYIYYSGSTN-Y 61

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDLWGRGTLVTVSSGGGGS 120
               |:| | |[| | ||:   |:::|: | |||||||| ||||:|||||:||||||||||
Db         62 NPSLKSRVTISVDTSKSQFSLKLSSVTAADTAVYYCARGRYFDVWGRGTMVTVSSGGGGS 121

Qy        121 GGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAPKLLI 180
                |||||||||||   |||| |||||||||||||||||:| |||||||||:|||||||:|
Db        122 GGGGSGGGGSSYVLTQPPSVSGSPGQSITISCTGTSSDVGGYNYVSWYQQHPGKAPKLMI 181

Qy        181 YDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSGPLFGGGTKVTVL 239
                |: | ||||:|||||||||||:|||||||||||||||||||:    |  :||||||:|||
Db        182 YEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRSTRVFGGGTKLTVL 241


RESULT 3
US-09-079-029-10
; Sequence 10, Application US/09079029
; Patent No. 6342369
;  GENERAL INFORMATION:
;    APPLICANT:  Adams, Camilia W.
;    APPLICANT:  Ashkenazi, Avi J.
;    APPLICANT:  Chuntharapai, Anan
;    APPLICANT:  Kim, Kyung J.
;    TITLE OF INVENTION:  Apo-2 Receptor
;    NUMBER OF SEQUENCES:  14
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Genentech, Inc.
;      STREET:  1 DNA Way
;      CITY:  South San Francisco
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94080
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5 inch, 1.44 Mb floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  WinPatin (Genentech)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/079,029
;      FILING DATE:
;      CLASSIFICATION:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Marschang, Diane L.
;      REGISTRATION NUMBER:  35,600
;      REFERENCE/DOCKET NUMBER:  P1101R2
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650/225-5416
;      TELEFAX:  650/952-9881
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  312 amino acids
;      TYPE:  Amino Acid
;      TOPOLOGY:  Linear
US-09-079-029-10

  Query Match             72.2%;  Score 902.5;  DB 4;  Length 312;
  Best Local Similarity   73.9%;  Pred. No. 3.1e-60;
  Matches  184;  Conservative   20;  Mismatches   30;  Indels   15;  Gaps    5;

Qy          2 VQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYYA 61
                ||| |||||||||||||||||||||||||| |||||||||||||||  |  ||| |||
Db         41 VQLVESGGGLVQPGGSLRLSCAASGFTFSSYWMSWVRQAPGKGLEWVANIKQDGSEKYYV 100

Qy         62 DSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD---------RYFDLWGRGTLVT 112
                |||||||||||||:||:|||||||||||||||||||          :|| ||||| ||
Db        101 DSVKGRFTISRDNAKNSLYLQMNSLRAEDTAVYYCARDLLKVKGSSSGWFDPWGRGTTVT 160

Qy        113 VSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYP 172
                |||||||||||||||| | |||  :|| : ||:: |:| | |  : :| | ||||| |
Db        161 VSSGGGGSGGGGSGGGGS-SELTQDPAVSVALGQTVRITCQGDS--LRSY-YASWYQQKP 216

Qy        173 GKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSG--PLF 230
                |:|| |:||  :|||||| :||||| ||:|||||:| ||||||||||:|  :||   :|
Db        217 GQAPVLVIYGKNNRPSGIPDRFSGSSSGNTASLTITGAQAEDEADYYCNSRDSSGNHVVF 276

Qy        231 GGGTKVTVL 239
                |||||:|||
Db        277 GGGTKLTVL 285


RESULT 4
US-10-039-785-53
; Sequence 53, Application US/10039785
; Patent No. 6538938
; GENERAL INFORMATION:
;  APPLICANT: Salcedo et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind to TRAIL
;  TITLE OF INVENTION:  Receptors
;  FILE REFERENCE: PF550
;  CURRENT APPLICATION NUMBER: US/10/039,785
;  CURRENT FILING DATE:  2002-05-07
;  PRIOR APPLICATION NUMBER: 60/369,860
;  PRIOR FILING DATE: 2002-04-05
;  PRIOR APPLICATION NUMBER: 60/341,237
;  PRIOR FILING DATE: 2001-12-20
;  PRIOR APPLICATION NUMBER: 60/331,310
;  PRIOR FILING DATE: 2001-11-14
;  PRIOR APPLICATION NUMBER: 60/331,044
;  PRIOR FILING DATE: 2001-11-07
;  PRIOR APPLICATION NUMBER: 60/327,364
;  PRIOR FILING DATE: 2001-10-09
;  PRIOR APPLICATION NUMBER: 60/323,807
```

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;  PRIOR FILING DATE: 2001-09-21
;  PRIOR APPLICATION NUMBER: 60/309,176
;  PRIOR FILING DATE: 2001-08-02
;  PRIOR APPLICATION NUMBER: 60/294,981
;  PRIOR FILING DATE: 2001-06-04
;  PRIOR APPLICATION NUMBER: 60/293,473
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 66
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 53
;   LENGTH: 249
;   TYPE: PRT
;   ORGANISM: Artificial sequence
;   FEATURE:
;   OTHER INFORMATION: T1006F07 scFv
US-10-039-785-53

  Query Match           71.8%;  Score 897.5;  DB 4;  Length 249;
  Best Local Similarity  72.1%;  Pred. No. 5.6e-60;
  Matches  181;  Conservative   21;  Mismatches   34;  Indels   15;  Gaps    4;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||||||||||||||||||||||||||:|||||||||||||||: ||  | : ||
Db          1 EVQLLESGGGLVQPGGSLRLSCAASGFTFSSYAMSWVRQAPGKGLEWVSAISGSGGSTYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYF----------DLWGRGTL 110
              ||||||||||||||||||||||||||||||||||||||||:  |          |:||:|||:
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAREPSFQQWGHYSYGMDVWGQGTM 120

Qy        111 VTVSSGGGGSGGGGSGGGGS-QSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQ 169
              |||||||||||||||||| || |||| ||| |||:  |:|:|   |    | ||||
Db        121 VTVSSGGGGSGGGGSGGGGSAQSVLTQPPSVSVSPGQAARITCSG---DKLGDKYASWYQ 177

Qy        170 QYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGP- 228
              | ||::| |:|| : ||||| ||||| ||:||:| ||| || ||||||| :: :|
Db        178 QRPGQSPVLVIYQDNKRPSGIPERFSGSNSGNTATLKISGTQAMDEADYYCLAWDSSADW 237

Qy        229 LFGGGTKVTVL 239
              :||||||||||
Db        238 VFGGGTKVTVL 248


RESULT 5
US-08-918-148-74
; Sequence 74, Application US/08918148A
; Patent No. 6342220
; GENERAL INFORMATION:
;  APPLICANT: Adams, Camellia
;  APPLICANT: W.
;  APPLICANT: Carter, Paul J.
;  APPLICANT: Fendly, Brian M.
;  APPLICANT: Gurney, Austin L.
;  TITLE OF INVENTION: Agonist Antibodies
;  FILE REFERENCE: P0979
;  CURRENT APPLICATION NUMBER: US/08/918,148A
;  CURRENT FILING DATE: 1997-08-25
;  NUMBER OF SEQ ID NOS: 79
; SEQ ID NO 74
;   LENGTH: 249
;   TYPE: PRT
;   ORGANISM: artificial
US-08-918-148-74

  Query Match           68.8%;  Score 860.5;  DB 4;  Length 249;
  Best Local Similarity  68.0%;  Pred. No. 3.3e-57;
  Matches  166;  Conservative   33;  Mismatches   40;  Indels    5;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              ||||||||| : :|| ||::||   |::|:: : |||| ||:||||:|::    |:  :
Db          3 QVQLQESGGEMKKPGESLKISCKGYGYSFATSWIGWVRQMPGRGLEWMAIMYPGNSDTRH 62

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR----DRYFDLWGRGTLVTVSSG 116
                | : : |:| | | || ||| :||:| |||:|||||       |||||:||:||||||

Db         63 NPSFEDQVTMSADTSINTAYLQWSSLKASDTAMYYCARAGVAGGAFDLWGKGTMVTVSSG 122

Qy        117 GGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAP 176
              |||||||||||||||| |||||||||||||||||||||||||| :| |||||||||:|||||
Db        123 GGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSGVGGYNYVSWYQQHPGKAP 182

Qy        177 KLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSG-PLFGGGTK 235
              |||||  ||||||: :||| |||:|||||||||||||||||:||::|  |  :||||||
Db        183 KLLIYGNSNRPSGVPDRFSASKSGNTASLTISGLQAEDEADYFCSTYAPPGIIMFGGGTK 242

Qy        236 VTVL 239
              :|||
Db        243 LTVL 246


RESULT 6
US-09-079-029-9
; Sequence 9, Application US/09079029
; Patent No. 6342369
;  GENERAL INFORMATION:
;    APPLICANT:  Adams, Camilia W.
;    APPLICANT:  Ashkenazi, Avi J.
;    APPLICANT:  Chuntharapai, Anan
;    APPLICANT:  Kim, Kyung J.
;    TITLE OF INVENTION:  Apo-2 Receptor
;    NUMBER OF SEQUENCES:  14
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Genentech, Inc.
;      STREET:  1 DNA Way
;      CITY:  South San Francisco
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94080
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5 inch, 1.44 Mb floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  WinPatin (Genentech)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/079,029
;      FILING DATE:
;      CLASSIFICATION:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Marschang, Diane L.
;      REGISTRATION NUMBER:  35,600
;      REFERENCE/DOCKET NUMBER:  P1101R2
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650/225-5416
;      TELEFAX:  650/952-9881
;  INFORMATION FOR SEQ ID NO:  9:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  309 amino acids
;      TYPE:  Amino Acid
;      TOPOLOGY:  Linear
US-09-079-029-9

  Query Match           68.8%;  Score 860;  DB 4;  Length 309;
  Best Local Similarity  70.0%;  Pred. No. 4.6e-57;
  Matches  173;  Conservative   29;  Mismatches   33;  Indels   12;  Gaps    5;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| :|||: :|||||||||||||||  | |||||||||||||: |:::| :  |
Db         40 EVQLVQSGGGVERPGGSLRLSCAASGFTFDDYGMSWVRQAPGKGLEWVSGINWNGGSTGY 99

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCA------RDRYFDLWGRGTLVTVS 114
              ||||||| ||||:|:|:||||||||||||||||||||      |  |||||||:|| ||||
Db        100 ADSVKGRVTISRDNAKNSLYLQMNSLRAEDTAVYYCAKILGAGRGWYFDLWGKGTTVTVS 159

Qy        115 SGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGK 174
              |||||||||||||||| | |||  :|| : ||:: |:| | |  : :| | ||||| ||:
Db        160 SGGGGSGGGGSGGGGS-SELTQDPAVSVALGQTVRITCQGDS--LRSY-YASWYQQKPGQ 215

Qy        175 APKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSG--PLFGG 232
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                || |:||  :|||||| :||||| ||:||||||:| ||||||||||:|  :||   :|||
Db        216 APVLVIYGKNNRPSGIPDRFSGSSSGNTASLTITGAQAEDEADYYCNSRDSSGNHVVFGG 275

Qy        233 GTKVTVL 239
              |||:|||
Db        276 GTKLTVL 282


RESULT 7
US-09-646-028-53
; Sequence 53, Application US/09646028
; Patent No. 6562347
; GENERAL INFORMATION:
;  APPLICANT:  Kwak, Larry
;  APPLICANT:  Biragyn, Arya
;  TITLE OF INVENTION:  METHODS AND COMPOSITIONS OF
;  TITLE OF INVENTION:  CHEMOKINE-TUMOR ANTIGEN FUSION PROTEINS AS CANCER VACCINES
;  FILE REFERENCE:  14014.0316/P
;  CURRENT APPLICATION NUMBER: US/09/646,028
;  CURRENT FILING DATE:  2000-09-12
;  PRIOR APPLICATION NUMBER:  60/077,745
;  PRIOR FILING DATE:  1998-03-12
;  NUMBER OF SEQ ID NOS:  57
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 53
;   LENGTH: 334
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of artificial sequence:/note=synthetic construct
US-09-646-028-53

  Query Match             68.4%;  Score 855.5;  DB 4;  Length 334;
  Best Local Similarity   69.0%;  Pred. No. 1.1e-56;
  Matches  171;  Conservative   29;  Mismatches   39;  Indels    9;  Gaps    4;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||||| |||||||| ||| |||| :::|||||||||||||: ||: |   ||
Db         80 EVQLLESGGGLVQSGGSLRLSCVASGLTFSSSAITWVRQAPGKGLEWVSGISFSGDTTYY 139

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----YFDLWGRGTLVTVSS- 115
              |||||||: |||||||:|||||:||  |||||:|| ::       | ||:||||||||
Db        140 ADSVKGRFSASRDNSKNTVYLQMNNLRPNDTAVYFCANNQTGNFCLDNWGQGTLVTVSSR 199

Qy        116 GGGGSGGGGSGGG--GSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPG 173
              |||||||||||||  |||| |||| ||| :||| :|||||: |:|||   |:|||::|
Db        200 GGGGSGGGGSGGGGSGSQSVLTQPPSVSAAPGQRVTISCTGSRSNIGAGYDVNWYQKFPE 259

Qy        174 KAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYY--CSSFANSGPLFG 231
              |||:|||  :|||||: :|||||||| :||| |:||| |||  ||  |:  : || |||
Db        260 TAPKVLIYSNNNRPSGVPDRFSGSKSGTSASLAITGLQLEDEGTYYCQCNDDSLSGWLFG 319

Qy        232 GGTKVTVL 239
              ||||:|||
Db        320 GGTKLTVL 327


RESULT 8
US-09-646-028-55
; Sequence 55, Application US/09646028
; Patent No. 6562347
; GENERAL INFORMATION:
;  APPLICANT:  Kwak, Larry
;  APPLICANT:  Biragyn, Arya
;  TITLE OF INVENTION:  METHODS AND COMPOSITIONS OF
;  TITLE OF INVENTION:  CHEMOKINE-TUMOR ANTIGEN FUSION PROTEINS AS CANCER VACCINES
;  FILE REFERENCE:  14014.0316/P
;  CURRENT APPLICATION NUMBER: US/09/646,028
;  CURRENT FILING DATE:  2000-09-12
;  PRIOR APPLICATION NUMBER:  60/077,745
;  PRIOR FILING DATE:  1998-03-12
;  NUMBER OF SEQ ID NOS:  57
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 55
;   LENGTH: 339
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of artificial sequence:/note=synthetic construct
US-09-646-028-55

  Query Match             68.4%;  Score 855.5;  DB 4;  Length 339;
  Best Local Similarity   69.0%;  Pred. No. 1.1e-56;
  Matches  171;  Conservative   29;  Mismatches   39;  Indels    9;  Gaps    4;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||||| |||||||| ||| |||| :::|||||||||||||: ||: |   ||
Db         85 EVQLLESGGGLVQSGGSLRLSCVASGLTFSSSAITWVRQAPGKGLEWVSGISFSGDTTYY 144

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----YFDLWGRGTLVTVSS- 115
              |||||||: |||||||:|||||:||  |||||:|| ::       | ||:||||||||
Db        145 ADSVKGRFSASRDNSKNTVYLQMNNLRPNDTAVYFCANNQTGNFCLDNWGQGTLVTVSSR 204

Qy        116 GGGGSGGGGSGGG--GSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPG 173
              |||||||||||||  |||| |||| ||| :||| :|||||: |:|||   |:|||::|
Db        205 GGGGSGGGGSGGGGSGSQSVLTQPPSVSAAPGQRVTISCTGSRSNIGAGYDVNWYQKFPE 264

Qy        174 KAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYY--CSSFANSGPLFG 231
              |||:|||  :|||||: :|||||||| :||| |:||| |||  ||  |:  : || |||
Db        265 TAPKVLIYSNNNRPSGVPDRFSGSKSGTSASLAITGLQLEDEGTYYCQCNDDSLSGWLFG 324

Qy        232 GGTKVTVL 239
              ||||:|||
Db        325 GGTKLTVL 332


RESULT 9
US-09-646-028-51
; Sequence 51, Application US/09646028
; Patent No. 6562347
; GENERAL INFORMATION:
;  APPLICANT:  Kwak, Larry
;  APPLICANT:  Biragyn, Arya
;  TITLE OF INVENTION:  METHODS AND COMPOSITIONS OF
;  TITLE OF INVENTION:  CHEMOKINE-TUMOR ANTIGEN FUSION PROTEINS AS CANCER VACCINES
;  FILE REFERENCE:  14014.0316/P
;  CURRENT APPLICATION NUMBER: US/09/646,028
;  CURRENT FILING DATE:  2000-09-12
;  PRIOR APPLICATION NUMBER:  60/077,745
;  PRIOR FILING DATE:  1998-03-12
;  NUMBER OF SEQ ID NOS:  57
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 51
;   LENGTH: 348
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of artificial sequence:/note=synthetic construct
US-09-646-028-51

  Query Match             68.4%;  Score 855.5;  DB 4;  Length 348;
  Best Local Similarity   69.0%;  Pred. No. 1.1e-56;
  Matches  171;  Conservative   29;  Mismatches   39;  Indels    9;  Gaps    4;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||||| |||||||| ||| |||| :::|||||||||||||: ||: |   ||
Db         94 EVQLLESGGGLVQSGGSLRLSCVASGLTFSSSAITWVRQAPGKGLEWVSGISFSGDTTYY 153

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----YFDLWGRGTLVTVSS- 115
              |||||||: |||||||:|||||:||  |||||:|| ::       | ||:||||||||
Db        154 ADSVKGRFSASRDNSKNTVYLQMNNLRPNDTAVYFCANNQTGNFCLDNWGQGTLVTVSSR 213

Qy        116 GGGGSGGGGSGGG--GSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPG 173
              |||||||||||||  |||| |||| ||| :||| :|||||: |:|||   |:|||::|
Db        214 GGGGSGGGGSGGGGSGSQSVLTQPPSVSAAPGQRVTISCTGSRSNIGAGYDVNWYQKFPE 273
```

```
Qy        174 KAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYY--CSSFANSGPLFG 231
              |||:|||  :|||||: :|||||||| :||| |:||| |||  ||  |:  : || |||
Db        274 TAPKVLIYSNNNRPSGVPDRFSGSKSGTSASLAITGLQLEDEGTYYCQCNDDSLSGWLFG 333

Qy        232 GGTKVTVL 239
              ||||:|||
Db        334 GGTKLTVL 341


RESULT 10
US-10-039-785-43
; Sequence 43, Application US/10039785
; Patent No. 6538938
; GENERAL INFORMATION:
;  APPLICANT: Salcedo et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind to TRAIL
;  TITLE OF INVENTION:  Receptors
;  FILE REFERENCE: PF550
;  CURRENT APPLICATION NUMBER: US/10/039,785
;  CURRENT FILING DATE:  2002-05-07
;  PRIOR APPLICATION NUMBER: 60/369,860
;  PRIOR FILING DATE: 2002-04-05
;  PRIOR APPLICATION NUMBER: 60/341,237
;  PRIOR FILING DATE: 2001-12-20
;  PRIOR APPLICATION NUMBER: 60/331,310
;  PRIOR FILING DATE: 2001-11-14
;  PRIOR APPLICATION NUMBER: 60/331,044
;  PRIOR FILING DATE: 2001-11-07
;  PRIOR APPLICATION NUMBER: 60/327,364
;  PRIOR FILING DATE: 2001-10-09
;  PRIOR APPLICATION NUMBER: 60/323,807
;  PRIOR FILING DATE: 2001-09-21
;  PRIOR APPLICATION NUMBER: 60/309,176
;  PRIOR FILING DATE: 2001-08-02
;  PRIOR APPLICATION NUMBER: 60/294,981
;  PRIOR FILING DATE: 2001-06-04
;  PRIOR APPLICATION NUMBER: 60/293,473
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 66
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 43
;   LENGTH: 245
;   TYPE: PRT
;   ORGANISM: Artificial sequence
;   FEATURE:
;   OTHER INFORMATION: T1014G03 scFv
US-10-039-785-43

  Query Match             68.0%;  Score 850.5;  DB 4;  Length 245;
  Best Local Similarity   68.0%;  Pred. No. 1.8e-56;
  Matches  166;  Conservative   30;  Mismatches   43;  Indels    5;  Gaps    3;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| :||  :  || |::|||  || ||::| : |||||||:||||:   :
Db          1 EVQLVQSGAEVKMPGASVKLSCRVSGDTFTAYFIHWVRQAPGQGLEWMGWFNPISGTAGS 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD---RYFDLWGRGTLVTVSSGG 117
              |:  :||  ::|| | :| |:::| |  :|||||||||       || ||:||||||||||
Db         61 AEKFRGRVAMTRDTSISTAYMELNRLTFDDTAVYYCARQHRGNTFDPWGQGTLVTVSSGG 120

Qy        118 GGSGGGGSGGGGS-QSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAP 176
              |||||||||||| |||||||||||||||||||||||||||||| ||||||:|||||
Db        121 GGSGGGGSGGGGSAQSALTQPASVSGSPGQSITISCTGTSSDIGAYKYVSWYQQHPGKAP 180

Qy        177 KLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGP-LFGGGTK 235
              ||:||:|||||||:|:|||||||| |||||||||||:|||||||:|:     :||||||
Db        181 KLVIYEVSNRPSGVSSRFSGSKSGQTASLTISGLQADDEADYYCNSYQGYNTWVFGGGTK 240

Qy        236 VTVL 239
              ||||
Db        241 VTVL 244


RESULT 11
US-10-039-785-47
; Sequence 47, Application US/10039785
; Patent No. 6538938
; GENERAL INFORMATION:
;  APPLICANT: Salcedo et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind to TRAIL
;  TITLE OF INVENTION:  Receptors
;  FILE REFERENCE: PF550
;  CURRENT APPLICATION NUMBER: US/10/039,785
;  CURRENT FILING DATE:  2002-05-07
;  PRIOR APPLICATION NUMBER: 60/369,860
;  PRIOR FILING DATE: 2002-04-05
;  PRIOR APPLICATION NUMBER: 60/341,237
;  PRIOR FILING DATE: 2001-12-20
;  PRIOR APPLICATION NUMBER: 60/331,310
;  PRIOR FILING DATE: 2001-11-14
;  PRIOR APPLICATION NUMBER: 60/331,044
;  PRIOR FILING DATE: 2001-11-07
;  PRIOR APPLICATION NUMBER: 60/327,364
;  PRIOR FILING DATE: 2001-10-09
;  PRIOR APPLICATION NUMBER: 60/323,807
;  PRIOR FILING DATE: 2001-09-21
;  PRIOR APPLICATION NUMBER: 60/309,176
;  PRIOR FILING DATE: 2001-08-02
;  PRIOR APPLICATION NUMBER: 60/294,981
;  PRIOR FILING DATE: 2001-06-04
;  PRIOR APPLICATION NUMBER: 60/293,473
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 66
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 47
;   LENGTH: 245
;   TYPE: PRT
;   ORGANISM: Artificial sequence
;   FEATURE:
;   OTHER INFORMATION: T1014B11 scFv
US-10-039-785-47

  Query Match             67.2%;  Score 839.5;  DB 4;  Length 245;
  Best Local Similarity   65.2%;  Pred. No. 1.2e-55;
  Matches  159;  Conservative   38;  Mismatches   42;  Indels    5;  Gaps    3;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| :||  : :|| |:::||  || :|::| : |:|||||:||||:   :
Db          1 EVQLVQSGAEVKKPGASVKVSCKISGDSFTAYFIHWLRQAPGEGLEWMGWFNPISGTAGS 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRY---FDLWGRGTLVTVSSGG 117
                 ||  ::|| | :| |:::  | ::|||:|||||  :   || ||:||||||||||
Db         61 PQKFHGRVAMTRDTSISTAYMELTRLASDDTAIYYCARQHHSNTFDPWGQGTLVTVSSGG 120

Qy        118 GGSGGGGSGGGGS-QSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAP 176
              |||||||||||| |||||||||||||||||||||||:||:| ||||||||||:|||||
Db        121 GGSGGGGSGGGGSAQSALTQPASVSGSPGQSITISCTGTNSDVGGYNYVSWYQQHPGKAP 180

Qy        177 KLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSYTTSNTWVFGGGTK 235
              ||:|||:|:|||||:|||||||||:|||||||||||:|||||||:  |   :||||||
Db        181 KLMIYEVNNRPSGVSNRFSGSKSGNTASLTISGLQADDEADYYCSSYTTSNTWVFGGGTK 240

Qy        236 VTVL 239
              :|||
Db        241 LTVL 244


RESULT 12
US-10-039-785-51
; Sequence 51, Application US/10039785
; Patent No. 6538938
; GENERAL INFORMATION:
;  APPLICANT: Salcedo et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind to TRAIL
;  TITLE OF INVENTION:  Receptors
;  FILE REFERENCE: PF550
```

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;  CURRENT APPLICATION NUMBER: US/10/039,785
;  CURRENT FILING DATE:  2002-05-07
;  PRIOR APPLICATION NUMBER: 60/369,860
;  PRIOR FILING DATE: 2002-04-05
;  PRIOR APPLICATION NUMBER: 60/341,237
;  PRIOR FILING DATE: 2001-12-20
;  PRIOR APPLICATION NUMBER: 60/331,310
;  PRIOR FILING DATE: 2001-11-14
;  PRIOR APPLICATION NUMBER: 60/331,044
;  PRIOR FILING DATE: 2001-11-07
;  PRIOR APPLICATION NUMBER: 60/327,364
;  PRIOR FILING DATE: 2001-10-09
;  PRIOR APPLICATION NUMBER: 60/323,807
;  PRIOR FILING DATE: 2001-09-21
;  PRIOR APPLICATION NUMBER: 60/309,176
;  PRIOR FILING DATE: 2001-08-02
;  PRIOR APPLICATION NUMBER: 60/294,981
;  PRIOR FILING DATE: 2001-06-04
;  PRIOR APPLICATION NUMBER: 60/293,473
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 66
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 51
;   LENGTH: 245
;   TYPE: PRT
;   ORGANISM: Artificial sequence
;   FEATURE:
;   OTHER INFORMATION: T1015A07 scFv
US-10-039-785-51

  Query Match             67.2%;  Score 839.5;  DB 4;  Length 245;
  Best Local Similarity   65.1%;  Pred. No. 1.2e-55;
  Matches  162;  Conservative   38;  Mismatches   34;  Indels   15;  Gaps    5;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVI-----SYDG 55
              :||| :||  : :|| |:::||  || :|::| : |:|||||:||||:        : |
Db          1 EVQLVQSGAEVKKPGASVKVSCKISGDSFTAYFIHWLRQAPGEGLEWMGWFNPISGTADS 60

Qy         56 SNKYYADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRY---FDLWGRGTLVT 112
                |::     ||  ::|| | :| |:::  | ::|||:|||||  :   || ||:|||||
Db         61 PQKFH-----GRVAMTRDTSISTAYMELTRLASDDTAIYYCARQHHSNTFDPWGQGTLVT 115

Qy        113 VSSGGGGSGGGGSGGGGS-QSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQY 171
              |||||||||||||||||| |||||||||:||||||||||||||||||:| |||||||||:
Db        116 VSSGGGGSGGGGSGGGGSAQSALTQPASMSGSPGQSITISCTGTSSDVGGYNYVSWYQQH 175

Qy        172 PGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGP-LF 230
              |||||||:|| |:|||||:|||||  ||||:|||||||||||||||||||||: :|   :|
Db        176 PGKAPKLMIYAVTNRPSGVSNRFSASKSGNTASLTISGLQAEDEADYYCSSYTSSNTWVF 235

Qy        231 GGGTKVTVL 239
              |||||||||
Db        236 GGGTKVTVL 244


RESULT 13
US-08-918-148-75
; Sequence 75, Application US/08918148A
; Patent No. 6342220
; GENERAL INFORMATION:
;  APPLICANT: Adams, Camellia
;  APPLICANT: W.
;  APPLICANT: Carter, Paul J.
;  APPLICANT: Fendly, Brian M.
;  APPLICANT: Gurney, Austin L.
;  TITLE OF INVENTION: Agonist Antibodies
;  FILE REFERENCE: P0979
;  CURRENT APPLICATION NUMBER: US/08/918,148A
;  CURRENT FILING DATE: 1997-08-25
;  NUMBER OF SEQ ID NOS: 79
; SEQ ID NO 75
;   LENGTH: 245
;   TYPE: PRT
;   ORGANISM: artificial
US-08-918-148-75

  Query Match             67.1%;  Score 838.5;  DB 4;  Length 245;
  Best Local Similarity   67.8%;  Pred. No. 1.4e-55;
  Matches  164;  Conservative   27;  Mismatches   44;  Indels    7;  Gaps    3;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| :||||:|||||||||||||||| | |||:||||||||||: || || ||
Db          3 EVQLVQSGGGLVKPGGSLRLSCAASGFTFSDYYMSWIRQAPGKGLEWVSYISSSGSTIYY 62

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR---DRYFDLWGRGTLVTVSSGG 117
              |||||||||||||||||||||||||||||||||||||||    :  ||:||:||:|||||||
Db         63 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARWSGEDAFDIWGQGTMVTVSSGG 122

Qy        118 GGSGGGGSGGGGSQSALTQ-PASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAP 176
              |||||||||||||    :|| |:::| | |  : |:|  :    | |:::|||| |||||
Db        123 GGSGGGGSGGGGSDIVMTQSPSTLSASVGDRVAITCRASE---GIYHWLAWYQQKPGKAP 179

Qy        177 KLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGPLFGGGTKV 236
              |||||  |:  ||  :|||||  ||    :|||| || :| | |||  ::|    ||||||:
Db        180 KLLIYKASSLASGAPSRFSGSGSGADFTLTISSLQPDDFATYYCQQYSNYPLTFGGGTKL 239

Qy        237 TV 238
              ||
Db        240 EV 241


RESULT 14
US-08-918-148-76
; Sequence 76, Application US/08918148A
; Patent No. 6342220
; GENERAL INFORMATION:
;  APPLICANT: Adams, Camellia
;  APPLICANT: W.
;  APPLICANT: Carter, Paul J.
;  APPLICANT: Fendly, Brian M.
;  APPLICANT: Gurney, Austin L.
;  TITLE OF INVENTION: Agonist Antibodies
;  FILE REFERENCE: P0979
;  CURRENT APPLICATION NUMBER: US/08/918,148A
;  CURRENT FILING DATE: 1997-08-25
;  NUMBER OF SEQ ID NOS: 79
; SEQ ID NO 76
;   LENGTH: 245
;   TYPE: PRT
;   ORGANISM: artificial
US-08-918-148-76

  Query Match             67.0%;  Score 837.5;  DB 4;  Length 245;
  Best Local Similarity   67.1%;  Pred. No. 1.7e-55;
  Matches  163;  Conservative   28;  Mismatches   45;  Indels    7;  Gaps    3;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| :||||:|||||||| |||| || |  :| | |||||||||||||| ||:|| ::||
Db          3 EVQLVQSGGGVVQPGGSLSLSCAVSGITLRTYGMHWVRQAPGKGLEWVAGISFDGRSEYY 62

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR---YFDLWGRGTLVTVSSGG 117
              |||||||||||||||||||||||||||||||||||||||     |:|||||:|||||||
Db         63 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRGSYGMDVWGRGTMVTVSSGG 122

Qy        118 GGSGGGGSGGGGSQSALTQ-PASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAP 176
              |||||||||||||    :|| |:::| | |  :||:|  :    | |:::|||| |||||
Db        123 GGSGGGGSGGGGSDIQMTQSPSTLSASIGDRVTITCRASE---GIYHWLAWYQQKPGKAP 179

Qy        177 KLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGPLFGGGTKV 236
              |||||  |:  ||  :|||||  ||    :|||| || :| | |||  ::|    ||||||:
Db        180 KLLIYKASSLASGAPSRFSGSGSGTDFTLTISSLQPDDFATYYCQQYSNYPLTFGGGTKL 239

Qy        237 TVL 239
              :|
Db        240 EIL 242
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RESULT 15
US-08-918-148-78
; Sequence 78, Application US/08918148A
; Patent No. 6342220
; GENERAL INFORMATION:
;  APPLICANT: Adams, Camellia
;  APPLICANT: W.
;  APPLICANT: Carter, Paul J.
;  APPLICANT: Fendly, Brian M.
;  APPLICANT: Gurney, Austin L.
;  TITLE OF INVENTION: Agonist Antibodies
;  FILE REFERENCE: P0979
;  CURRENT APPLICATION NUMBER: US/08/918,148A
;  CURRENT FILING DATE: 1997-08-25
;  NUMBER OF SEQ ID NOS: 79
; SEQ ID NO 78
;  LENGTH: 245
;  TYPE: PRT
;  ORGANISM: artificial
;  FEATURE:
;  NAME/KEY: unknown
;  LOCATION: 208
;  OTHER INFORMATION: unknown amino acid
US-08-918-148-78

  Query Match             66.9%;  Score 836.5;  DB 4;  Length 245;
  Best Local Similarity   68.2%;  Pred. No. 2e-55;
  Matches  165;  Conservative   28;  Mismatches   42;  Indels    7;  Gaps    3;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| |||||||:|||||||||||||||||::|:|||||||||||||: ||   |  ||
Db          3 QVQLVESGGGLVKPGGSLRLSCAASGFTFSSHNMNWVRQAPGKGLEWVSSISSSSSYIYY 62

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR---YFDLWGRGTLVTVSSGG 117
              |||||||||||||:||:|||||||||||||||||||||     |:|||||||||||||
Db         63 ADSVKGRFTISRDNAKNSLYLQMNSLRAEDTAVYYCARDRGSTGMDVWGRGTLVTVSSGG 122

Qy        118 GGSGGGGSGGGGSQSALTQ-PASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAP 176
              |||||||||||||:  :|| |:::| | |  :||:|  :    | |::::|||| |||||
Db        123 GGSGGGGSGGGGSKIQMTQSPSTLSASIGDRVTITCRASE---GIYHWLAWYQQKPGKAP 179

Qy        177 KLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGPLPGGGTKV 236
              |||||  |:  ||  :|||||||   :  ||| || :| | |||  ::|   ||||||:
Db        180 KLLIYKASSLASGAPSRFSGSGSGTDFTXTISSLQPDDFATYYCQQYSNYPLTFGGGTKL 239

Qy        237 TV 238
              :
Db        240 EI 241


Search completed: March 15, 2004, 07:26:21
Job time : 23 secs
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OM protein - protein search, using sw model

Run on: March 15, 2004, 07:25:43 ; Search time 20 Seconds
(without alignments)
1149.489 Million cell updates/sec

Title: US-09-620-955B-6
Perfect score: 1250
Sequence: 1 QVQLQESGGGLVQPGGSLRL.....CSSFANSGPLFGGGTKVTVL 239

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283366 seqs, 96191526 residues

Total number of hits satisfying chosen parameters: 283366

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR 78:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	619	49.5	268	2	A56446	Ig heavy chain V r
2	589.5	47.2	249	2	S41374	single chain Fv an
3	549.5	44.0	140	2	S70442	Ig heavy chain pre
4	547	43.8	119	2	F36005	Ig heavy chain V r
5	546	43.7	121	2	G36005	Ig heavy chain V r
6	541	43.3	132	2	S31603	Ig heavy chain V r
7	540.5	43.2	233	2	JC5322	p53 specific singl
8	539.5	43.2	122	2	E36005	Ig heavy chain V r
9	539	43.1	134	2	S31679	Ig heavy chain V r
10	538	43.0	123	2	S38493	Ig heavy chain - h
11	537.5	43.0	114	2	S46391	Ig heavy chain V r
12	534.5	42.8	114	2	S46390	Ig heavy chain V r
13	534.5	42.8	118	2	S31116	Ig heavy chain - h
14	534.5	42.8	122	2	S31117	Ig heavy chain - h
15	533	42.6	111	2	PH1645	Ig heavy chain V r
16	533	42.6	121	2	S19666	Ig heavy chain V r
17	531.5	42.5	128	2	S48797	Ig heavy chain V r
18	531	42.5	133	2	A49028	Ig heavy chain V-I
19	529	42.3	135	2	S31598	Ig heavy chain V r
20	528	42.2	138	2	S31666	Ig heavy chain V r
21	526	42.1	130	2	S31601	Ig heavy chain V r
22	525.5	42.0	137	2	S31701	Ig heavy chain V r
23	521.5	41.7	139	2	S31674	Ig heavy chain V r
24	520.5	41.6	114	2	S46392	Ig heavy chain V r
25	520	41.6	119	2	S31107	Ig heavy chain - h
26	518.5	41.5	120	2	S31112	Ig heavy chain - h
27	518	41.4	119	2	S31108	Ig heavy chain - h
28	517.5	41.4	120	2	S48798	Ig heavy chain V r
29	517.5	41.4	147	2	I37780	Ig variable region
30	516	41.3	130	2	PL0098	Ig heavy chain pre
31	516	41.3	140	2	S31588	Ig heavy chain V r
32	515	41.2	119	2	D36005	Ig heavy chain V r
33	512.5	41.0	128	2	S26790	Ig heavy chain V r
34	511.5	40.9	141	2	S31669	Ig heavy chain V r
35	511	40.9	119	2	C36005	Ig heavy chain V r
36	509	40.7	109	2	PH1646	Ig heavy chain V r
37	508.5	40.7	124	2	S20782	Ig heavy chain V r
38	508	40.6	125	2	S30531	Ig heavy chain V r
39	507.5	40.6	122	1	M3HUAM	Ig heavy chain V-I
40	505.5	40.4	133	2	S31510	Ig heavy chain - h
41	505.5	40.4	136	2	S31587	Ig heavy chain V r
42	505	40.4	111	2	PH1643	Ig heavy chain V r
43	505	40.4	123	2	S31114	Ig heavy chain - h
44	504.5	40.4	108	2	PH1642	Ig heavy chain V r
45	503	40.2	117	2	S78486	Ig heavy chain V r

ALIGNMENTS

RESULT 1
A56446
Ig heavy chain V region (3H-3H scFv) - mouse (strain BALB/C)
C;Species: Mus musculus (house mouse)
C;Date: 19-Jan-1996 #sequence_revision 19-Jan-1996 #text_change 16-Aug-1996
C;Accession: A56446
R;Tang, P.M.; Foltz, L.A.; Mahoney, W.C.; Schueler, P.A.
J. Biol. Chem. 270, 7829-7835, 1995
A;Title: A high affinity digoxin-binding protein displayed on M13 is functionally identi
A;Reference number: A56446; MUID:95229583; PMID:7713873
A;Accession: A56446
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-268 <TAN>
A;Cross-references: GB:U20617
C;Keywords: heterotetramer; immunoglobulin

Query Match 49.5%; Score 619; DB 2; Length 268;
Best Local Similarity 51.7%; Pred. No. 5.4e-36;
Matches 125; Conservative 34; Mismatches 75; Indels 8; Gaps 3;

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Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              ||:|||||  ||:|| |::|||  |||       | ||:| | :||||:  |:       |
Db          3 QVKLQESGAELVKPGASVKLSCTTSGFNIKDTYMHWVKQRPEQGLEWIGRIAPANGITKY 62

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR---DRYFDLWGRGTLVTVSSGG 117
                :|: ||: | | || |||::|| :|||||||||      || : ||:|| |||||||
Db         63 DPKFQGKATIAADTSSNTAYLQLSSLTSEDTAVYYCASYYLTRYENYWGQGTTVTVSSGG 122

Qy        118 GGSGGGGSGGGGSQSALTQ-PASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAP 176
              |||||| ||||||   ||| || :| | |: :|:||  :||     |:: ||||   :|
Db        123 GGSGGGDSGGGGSDIELTQSPAIMSASLGEKVTMSCRASSS----VNFIYWYQQKSDASP 178

Qy        177 KLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGPLFGGGTKV 236
              || :|  |: | |:  ||||| ||:: ||||| :: || | |||  | :|   || |||:
Db        179 KLWVYYTSHLPPGVPARFSGSGSGNSYSLTISSMEGEDAATYYCQQFTSSPFTFGSGTKL 238

Qy        237 TV 238
               :
Db        239 EI 240
```

RESULT 2
S41374
single chain Fv antibody - mouse
C;Species: Mus musculus (house mouse)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 06-Jan-1995
C;Accession: S41374
R;Artsaenko, O.; Weiler, E.W.; Muentz, K.; Conrad, U.
submitted to the EMBL Data Library, January 1994
A;Description: Construction and functional characterization of a single chain Fv antibod
A;Reference number: S41374

A;Accession: S41374
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-249 <ART>
A;Cross-references: EMBL:Z29480

  Query Match 47.2%; Score 589.5; DB 2; Length 249;
  Best Local Similarity 51.4%; Pred. No. 5.5e-34;
  Matches 125; Conservative 35; Mismatches 76; Indels 7; Gaps 4;

Qy 1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
Db 1 QVQLQQSGAELVRPGASVKLSCTASGFNFKDDYIHWVKQRPEKGLEWIARIAPASGNVKY 60

Qy 61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR--DRYFDL--WGRGTLVTVSSG 116
Db 61 VPRFQDKATITADTSSNTAYLLLSSLTSEDTAVYYCARRDTLYTSLGYWGQGSTVTVSSR 120

Qy 117 GGGSGGGGSGGGGSQSALTQ-PASVSGSPGQSITISCTGTSSDI--GAYNYVSWYQQYPG 173
Db 121 GGGSGGGGSGGGGSDIELTQSPPSVVVIPGESVSISCRSSKSLLYSDGDSYLFWFLQRPG 180

Qy 174 KAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGPLFGGG 233
Db 181 QSPQLLIYRMSNLASGVPDRFSGSGSGTSFTLRISRVEAEDVGVYYCMQHREYPLTFGAG 240

Qy 234 TKV 236
Db 241 TKL 243

RESULT 3
S70442
Ig heavy chain precursor V region (mu) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 24-Jul-1998 #sequence_revision 24-Jul-1998 #text_change 21-Jan-2000
C;Accession: S70442
R;Cuisinier, A.M.; Fumoux, F.; Fougereau, M.; Tonnelle, C.
Mol. Immunol. 29, 1363-1373, 1992
A;Title: IgM kappa/lambda EBV human B cell clone: an early step of differentiation of fe
A;Reference number: S70442; MUID:93024508; PMID:1383695
A;Accession: S70442
A;Status: not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-140 <CUI>
C;Superfamily: immunoglobulin V region; immunoglobulin homology
F;34-117/Domain: immunoglobulin homology <IMM>

  Query Match 44.0%; Score 549.5; DB 2; Length 140;
  Best Local Similarity 87.6%; Pred. No. 1.8e-31;
  Matches 106; Conservative 3; Mismatches 7; Indels 5; Gaps 1;

Qy 1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
Db 20 QVQLVESGGGVVQPGGSLRLSCAASGFTFSNYGMHWVRQAPGKGLEWVAFIRYDGSNKYY 79

Qy 61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR-----YFDLWGRGTLVTVSS 115
Db 80 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDHIVGATYFDYWGQGTLVTVSS 139

Qy 116 G 116
Db 140 G 140

RESULT 4
F36005
Ig heavy chain V region (M49) - human
C;Species: Homo sapiens (man)
C;Date: 21-Dec-1990 #sequence_revision 21-Dec-1990 #text_change 16-Dec-1998
C;Accession: F36005
R;Schroeder Jr., H.W.; Wang, J.Y.
Proc. Natl. Acad. Sci. U.S.A. 87, 6146-6150, 1990
A;Title: Preferential utilization of conserved immunoglobulin heavy chain variable gene
A;Reference number: A36005; MUID:90349571; PMID:2117273
A;Accession: F36005
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-119 <SCH>
A;Cross-references: GB:M34026
C;Genetics:
A;Gene: GDB:IGH@; IGHDY1
A;Cross-references: GDB:118731; OMIM:146910
A;Map position: 14q32.33-14q32.33
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>

  Query Match 43.8%; Score 547; DB 2; Length 119;
  Best Local Similarity 89.1%; Pred. No. 2.2e-31;
  Matches 106; Conservative 5; Mismatches 4; Indels 4; Gaps 1;

Qy 1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
Db 1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy 61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----YFDLWGRGTLVTVSS 115
Db 61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRKASDAFDIWGQGTMVTVSS 119

RESULT 5
G36005
Ig heavy chain V region (M74) - human
C;Species: Homo sapiens (man)
C;Date: 21-Dec-1990 #sequence_revision 21-Dec-1990 #text_change 16-Dec-1998
C;Accession: G36005
R;Schroeder Jr., H.W.; Wang, J.Y.
Proc. Natl. Acad. Sci. U.S.A. 87, 6146-6150, 1990
A;Title: Preferential utilization of conserved immunoglobulin heavy chain variable gene
A;Reference number: A36005; MUID:90349571; PMID:2117273
A;Accession: G36005
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-121 <SCH>
A;Cross-references: GB:M34031
C;Genetics:
A;Gene: GDB:IGH@; IGHDY1
A;Cross-references: GDB:118731; OMIM:146910
A;Map position: 14q32.33-14q32.33
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>

  Query Match 43.7%; Score 546; DB 2; Length 121;
  Best Local Similarity 88.4%; Pred. No. 2.7e-31;
  Matches 107; Conservative 3; Mismatches 5; Indels 6; Gaps 1;

Qy 1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
Db 1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy 61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR------YFDLWGRGTLVTVS 114
Db 61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRKDWGWALFDYWGQGTLVTVS 120

Qy 115 S 115
Db 121 S 121

RESULT 6
S31603
Ig heavy chain V region - human
C;Species: Homo sapiens (man)
C;Date: 03-Mar-1994 #sequence_revision 10-Nov-1995 #text_change 23-Jul-1999

```
;Accession: S31603
;Cuisinier, A.M.; Gauthier, L.; Boubli, L.; Fougereau, M.; Tonnelle, C.
ubmitted to the EMBL Data Library, June 1992
;Description: Mechanisms that generate human immunoglobulin diversity operate from the
;Reference number: S31585
;Accession: S31603
;Status: preliminary
;Molecule type: mRNA
;Residues: 1-132 <CUI>
;Cross-references: EMBL:Z14168; NID:g30999; PIDN:CAA78537.1; PID:g31000
;Superfamily: immunoglobulin V region; immunoglobulin homology
;Keywords: heterotetramer; immunoglobulin
;30-113/Domain: immunoglobulin homology <IMM>

  Query Match             43.3%;  Score 541;  DB 2;  Length 132;
  Best Local Similarity   89.7%;  Pred. No. 6.5e-31;
  Matches  105;  Conservative    3;  Mismatches    7;  Indels    2;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| ||||| :|||| ||||||||||||||||| | ||||||||||||||||||||||||
Db         16 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSNKYY 75

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD--RYFDLWGRGTLVTVSS 115
              |||||||||||||||||||||||| ||||||||||:|    ||| ||:||||||||
Db         76 ADSVKGRFTISRDNSKNTLYLQMNGLRAEDTAVYYCAKDLFYYFDYWGQGTLVTVSS 132


RESULT 7
JC5322
p53 specific single-chain antibody Pab421 - human
C;Species: Homo sapiens (man)
C;Date: 15-May-1997 #sequence_revision 15-May-1997 #text_change 18-Jul-1997
C;Accession: JC5322
R;Jannot, C.B.; Hynes, N.E.
Biochem. Biophys. Res. Commun. 230, 242-246, 1997
A;Title: Characterization of scFv-421, a single-chain antibody targeted to p53.
A;Reference number: JC5322; MUID:97168950; PMID:9016757
A;Accession: JC5322
A;Molecule type: mRNA
A;Residues: 1-233 <JAN>
A;Experimental source: hydricloma cell
C;Comment: This protein specifically binds the tumor suppressor protein p53. It restores

  Query Match             43.2%;  Score 540.5;  DB 2;  Length 233;
  Best Local Similarity   49.2%;  Pred. No. 1.3e-30;
  Matches  116;  Conservative   31;  Mismatches   84;  Indels    5;  Gaps    4;

Qy          5 QESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYYADSV 64
              ||||  ||: | |::||| |||  : | | ||:: | :|||:  |  :  :    |
Db          1 QESGAELVRSGASVKLSCTTSGFNINDYYMHWVKKRPEQGLEWIGRIDPENGDADMTRSS 60

Qy         65 KGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDLWGRGTLVTVSSGGGGSGGGG 124
                : |:: | | || |||::|| :||||||||  :   | ||:|| ||||||||||||
Db         61 GVKATMTADTSSNTAYLQLSSLTSEDTAVYYC--NAGMDYWGQGTTVTVSSGGGGSGGRA 118

Qy        125 SGGGGSQSALTQ-PASVSGSPGQSITISCTGTSS-DIGAYNYVSWYQQYPGKAPKLLIYD 182
              ||||||   ||| |||:: | ||  |||  :  |    |:|: | || ||: |:||||
Db        119 SGGGGSDIELTQSPASLAVSLGQRATISCRASKSVSTSGYSYMHWNQQKPGQPPRLLIYL 178

Qy        183 VSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGPLFGGGTKVTV 238
              |||  ||:  ||||| ||   :| |  :: || | |||          ||||: :
Db        179 VSNLESGVPARFSGSGSGTDFTLNIHPVEEEDAATYYCQHIREL-TRSEGGTKLEI 233


RESULT 8
E36005
Ig heavy chain V region (M72) - human
C;Species: Homo sapiens (man)
C;Date: 21-Dec-1990 #sequence_revision 21-Dec-1990 #text_change 16-Dec-1998
C;Accession: E36005
R;Schroeder Jr., H.W.; Wang, J.Y.
Proc. Natl. Acad. Sci. U.S.A. 87, 6146-6150, 1990
A;Title: Preferential utilization of conserved immunoglobulin heavy chain variable gene
A;Reference number: A36005; MUID:90349571; PMID:2117273
A;Accession: E36005
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-122 <SCH>
A;Cross-references: GB:M34030
C;Genetics:
A;Gene: GDB:IGH@; IGHDY1
A;Cross-references: GDB:118731; OMIM:146910
A;Map position: 14q32.33-14q32.33
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>

  Query Match             43.2%;  Score 539.5;  DB 2;  Length 122;
  Best Local Similarity   86.1%;  Pred. No. 7.6e-31;
  Matches  105;  Conservative    5;  Mismatches    5;  Indels    7;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| ||||| :|||| ||||||||||||||||:| ||||||||||||||||||||||||
Db          1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRY-------FDLWGRGTLVTV 113
              |||||||||||||||||||||||||||||||||||||||:       |:|:|| |||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRHSSSWYYGMDVWGQGTTVTV 120

Qy        114 SS 115
              ||
Db        121 SS 122


RESULT 9
S31679
Ig heavy chain V region - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 23-Jul-1999
C;Accession: S31679
R;Cuisinier, A.M.; Gauthier, L.; Boubli, L.; Fougereau, M.; Tonnelle, C.
submitted to the EMBL Data Library, June 1992
A;Description: Mechanisms that generate human immunoglobulin diversity operate from the
A;Reference number: S31585
A;Accession: S31679
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-134 <CUI>
A;Cross-references: EMBL:Z14203; NID:g30965; PIDN:CAA78572.1; PID:g30966
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;34-117/Domain: immunoglobulin homology <IMM>

  Query Match             43.1%;  Score 539;  DB 2;  Length 134;
  Best Local Similarity   90.4%;  Pred. No. 9e-31;
  Matches  104;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| ||||| :|||| ||||||||||||||||:| ||||||||||||||||||||||||
Db         20 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 79

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDLWGRGTLVTVSS 115
              |||||||||||||||||||||||||||||||||||||:   | ||:||||||||
Db         80 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARESRGDYWGQGTLVTVSS 134


RESULT 10
S38493
Ig heavy chain - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 23-Jul-1999
C;Accession: S38493
R;Marks, J.D.; Ouwehand, W.H.; Bye, J.M.; Finnern, R.; Gorick, B.D.; Voak, D.; Thorpe, S
submitted to the EMBL Data Library, June 1993
A;Description: Human antibody fragments specific for human blood group antigens from a pl
A;Reference number: S38488
```

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A;Accession: S38493
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-123 <MAR>
A;Cross-references: EMBL:Z23036; NID:g414033; PIDN:CAA80571.1; PID:g414034
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>

  Query Match             43.0%;  Score 538;  DB 2;  Length 123;
  Best Local Similarity   85.4%;  Pred. No. 9.7e-31;
  Matches  105;  Conservative    4;  Mismatches    6;  Indels    8;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              ||||||||||:|||| || |||||||||||||:| |||||||||||||||||||||||||
Db          1 QVQLQESGGGVVQPGRSLSLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR--------YFDLWGRGTLVT 112
              |||||||||||||||||||||||||||||||||||||| |        | |:||:|| ||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARARSNWNYYYYYMDVWGKGTTVT 120

Qy        113 VSS 115
              |||
Db        121 VSS 123


RESULT 11
S46391
Ig heavy chain V region - human
C;Species: Homo sapiens (man)
C;Date: 27-Jan-1995 #sequence_revision 27-Jan-1995 #text_change 20-Jun-2000
C;Accession: S46391
R;Figini, M.; Marks, J.D.; Winter, G.; Griffiths, A.D.
J. Mol. Biol. 239, 68-78, 1994
A;Title: In vitro assembly of repertoires of antibody chains on the surface of phage by
A;Reference number: S46390; MUID:94254092; PMID:8196048
A;Accession: S46391
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-114 <FIG>
A;Cross-references: EMBL:Z31687; NID:g509784; PIDN:CAA83492.1; PID:g1335144
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>

  Query Match             43.0%;  Score 537.5;  DB 2;  Length 114;
  Best Local Similarity   90.4%;  Pred. No. 9.7e-31;
  Matches  104;  Conservative    5;  Mismatches    5;  Indels    1;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              || |:||||||||||||||:|||||||||:| |||||||||||||| ||||||||
Db          1 QVNLRESGGGLVQPGGSLRLSCSASGFTFSSYAMHWVRQAPGKGLEWVAVIWYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDLWGRGTLVTVSS 115
              |||||||||||||||||||||||||||||||||||| : | ||:||||||||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD-FGDYWGQGTLVTVSS 114


RESULT 12
S46390
Ig heavy chain V region - human
C;Species: Homo sapiens (man)
C;Date: 27-Jan-1995 #sequence_revision 27-Jan-1995 #text_change 20-Jun-2000
C;Accession: S46390
R;Figini, M.; Marks, J.D.; Winter, G.; Griffiths, A.D.
J. Mol. Biol. 239, 68-78, 1994
A;Title: In vitro assembly of repertoires of antibody chains on the surface of phage by
A;Reference number: S46390; MUID:94254092; PMID:8196048
A;Accession: S46390
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-114 <FIG>
A;Cross-references: EMBL:Z31686; NID:g509782; PIDN:CAA83491.1; PID:g1335143
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>

  Query Match             42.8%;  Score 534.5;  DB 2;  Length 114;
  Best Local Similarity   90.4%;  Pred. No. 1.6e-30;
  Matches  104;  Conservative    5;  Mismatches    5;  Indels    1;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| ||||||:|||| |||||||||||||||:| |||||||||||||||||||||||||
Db          1 EVQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDLWGRGTLVTVSS 115
              |||||||||||||||||||||||||||||||||||||| : | ||:|||||||||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD-WGDYWGQGTLVTVSS 114


RESULT 13
S31116
Ig heavy chain - human
C;Species: Homo sapiens (man)
C;Date: 02-Dec-1993 #sequence_revision 26-May-1995 #text_change 17-Mar-1999
C;Accession: S31116
R;Raaphorst, F.M.; Timmers, E.; Kenter, M.J.H.; van Tol, M.J.D.; Vossen, J.M.; Schuurma
Eur. J. Immunol. 22, 247-251, 1992
A;Title: Restricted utilization of germ-line V(H)3 genes and short diverse third comple
A;Reference number: S31104; MUID:92111633; PMID:1730252
A;Accession: S31116
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: mRNA
A;Residues: 1-118 <RAA>
A;Cross-references: EMBL:X62966
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, October 1991
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>

  Query Match             42.8%;  Score 534.5;  DB 2;  Length 118;
  Best Local Similarity   88.1%;  Pred. No. 1.6e-30;
  Matches  104;  Conservative    4;  Mismatches    7;  Indels    3;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| ||||:|||| |||||||||||||| | ||||||||||||||||||||||||||
Db          1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD---RYFDLWGRGTLVTVSS 115
              |||||||||||||||||||||||||||||||||||||| |     ||:||:||:|||||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCATDGGKAAFDIWGQGTMVTVSS 118


RESULT 14
S31117
Ig heavy chain - human
C;Species: Homo sapiens (man)
C;Date: 02-Dec-1993 #sequence_revision 26-May-1995 #text_change 17-Mar-1999
C;Accession: S31117
R;Raaphorst, F.M.; Timmers, E.; Kenter, M.J.H.; van Tol, M.J.D.; Vossen, J.M.; Schuurma
Eur. J. Immunol. 22, 247-251, 1992
A;Title: Restricted utilization of germ-line V(H)3 genes and short diverse third comple
A;Reference number: S31104; MUID:92111633; PMID:1730252
A;Accession: S31117
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: mRNA
A;Residues: 1-122 <RAA>
A;Cross-references: EMBL:X62967
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, October 1991
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>

  Query Match             42.8%;  Score 534.5;  DB 2;  Length 122;
  Best Local Similarity   86.1%;  Pred. No. 1.7e-30;
  Matches  105;  Conservative    3;  Mismatches    7;  Indels    7;  Gaps    1;
```

```
Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| ||||:|||| |||||||||||||||| | ||||||||||||||| ||||||||
Db          1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVIWYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD-------RYFDLWGRGTLVTV 113
              |||||||||||||||||||||||||||||||||||||||        :|| ||:||||||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDFFAPPNWSHFDYWGQGTLVTV 120

Qy        114 SS 115
              ||
Db        121 SS 122


RESULT 15
PH1645
Ig heavy chain V region (clone 6C8) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 16-Aug-1996
C;Accession: PH1645
R;Hillson, J.L.; Karr, N.S.; Oppliger, I.R.; Mannik, M.; Sasso, E.H.
J. Exp. Med. 178, 331-336, 1993
A;Title: The structural basis of germline-encoded VH3 immunoglobulin binding to staphylc
A;Reference number: PH1642; MUID:93301610; PMID:8315388
A;Accession: PH1645
A;Molecule type: mRNA
A;Residues: 1-111 <HIL>
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;7-90/Domain: immunoglobulin homology <IMM>

  Query Match             42.6%;  Score 533;  DB 2;  Length 111;
  Best Local Similarity   92.8%;  Pred. No. 1.9e-30;
  Matches  103;  Conservative    2;  Mismatches    2;  Indels    4;  Gaps    1;

Qy          9 GGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYYADSVKGRF 68
              ||:|||| |||||||||||||||:| ||||||||||||||||||||||||||||||||||
Db          1 GGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYYADSVKGRF 60

Qy         69 TISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----YFDLWGRGTLVTVSS 115
              |||||||||||||||||||||||||||||||    ||||||||||||||
Db         61 TISRDNSKNTLYLQMNSLRAEDTAVYYCARDRRGAWYFDLWGRGTLVTVSS 111


Search completed: March 15, 2004, 07:28:22
Job time : 21 secs
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GenCore version 5.1.6

M protein - protein search, using sw model

un on: March 15, 2004, 07:26:28 ; Search time 406 Seconds
(without alignments)
124.300 Million cell updates/sec

itle: US-09-620-955B-6
erfect score: 1250
equence: 1 QVQLQESGGGLVQPGGSLRL.....CSSFANSGPLFGGGTKVTVL 239

coring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

earched: 809742 seqs, 211153259 residues

otal number of hits satisfying chosen parameters: 809742

inimum DB seq length: 0
aximum DB seq length: 2000000000

ost-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1110	88.8	254	10	US-09-880-748-983	Sequence 983, App
2	1106	88.5	256	10	US-09-880-748-839	Sequence 839, App
3	1097	87.8	252	10	US-09-880-748-1627	Sequence 1627, Ap
4	1096	87.7	254	10	US-09-880-748-981	Sequence 981, App
5	1095.5	87.6	241	10	US-09-880-748-2055	Sequence 2055, Ap
6	1093	87.4	252	10	US-09-880-748-956	Sequence 956, App
7	1089.5	87.2	251	10	US-09-880-748-955	Sequence 955, App
8	1089.5	87.2	251	10	US-09-880-748-1317	Sequence 1317, Ap
9	1088.5	87.1	251	10	US-09-880-748-1114	Sequence 1114, Ap
10	1084.5	86.8	253	10	US-09-880-748-1003	Sequence 1003, Ap
11	1082.5	86.6	251	10	US-09-880-748-1332	Sequence 1332, Ap
12	1079	86.3	254	10	US-09-880-748-1701	Sequence 1701, Ap
13	1079	86.3	254	10	US-09-880-748-1759	Sequence 1759, Ap
14	1078	86.2	256	10	US-09-880-748-1392	Sequence 1392, Ap
15	1077.5	86.2	253	10	US-09-880-748-989	Sequence 989, App
16	1077	86.2	254	10	US-09-880-748-881	Sequence 881, App
17	1073.5	85.9	253	10	US-09-880-748-1007	Sequence 1007, Ap
18	1072	85.8	244	10	US-09-880-748-1910	Sequence 1910, Ap
19	1067	85.4	254	10	US-09-880-748-977	Sequence 977, App
20	1065	85.2	240	10	US-09-880-748-2047	Sequence 2047, Ap
21	1065	85.2	254	10	US-09-880-748-1428	Sequence 1428, Ap
22	1064.5	85.2	253	10	US-09-880-748-1449	Sequence 1449, Ap
23	1063	85.0	254	10	US-09-880-748-1075	Sequence 1075, Ap
24	1062	85.0	254	10	US-09-880-748-1735	Sequence 1735, Ap
25	1061.5	84.9	251	10	US-09-880-748-1605	Sequence 1605, Ap
26	1061.5	84.9	253	10	US-09-880-748-1337	Sequence 1337, Ap
27	1061	84.9	246	10	US-09-880-748-1314	Sequence 1314, Ap
28	1061	84.9	254	10	US-09-880-748-1673	Sequence 1673, Ap
29	1058	84.6	240	10	US-09-880-748-1898	Sequence 1898, Ap
30	1057	84.6	252	10	US-09-880-748-1431	Sequence 1431, Ap
31	1056.5	84.5	247	10	US-09-880-748-915	Sequence 915, App
32	1056	84.5	252	10	US-09-880-748-1690	Sequence 1690, Ap
33	1055	84.4	240	10	US-09-880-748-1930	Sequence 1930, Ap
34	1055	84.4	246	10	US-09-880-748-1324	Sequence 1324, Ap
35	1055	84.4	250	10	US-09-880-748-883	Sequence 883, App
36	1053	84.2	246	10	US-09-880-748-2077	Sequence 2077, Ap
37	1052.5	84.2	243	10	US-09-880-748-995	Sequence 995, App
38	1052	84.2	252	10	US-09-880-748-1634	Sequence 1634, Ap
39	1051	84.1	248	10	US-09-880-748-1782	Sequence 1782, Ap
40	1050.5	84.0	247	10	US-09-880-748-923	Sequence 923, App
41	1050.5	84.0	247	14	US-10-322-673-48	Sequence 48, Appl
42	1050	84.0	248	10	US-09-880-748-1653	Sequence 1653, Ap
43	1049.5	84.0	251	10	US-09-880-748-925	Sequence 925, App
44	1045.5	83.6	255	10	US-09-880-748-1819	Sequence 1819, Ap
45	1045	83.6	248	10	US-09-880-748-1404	Sequence 1404, Ap

ALIGNMENTS

RESULT 1
US-09-880-748-983
; Sequence 983, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
; APPLICANT: Ruben et al.
; TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
; FILE REFERENCE: PF523
; CURRENT APPLICATION NUMBER: US/09/880,748
; CURRENT FILING DATE: 2001-06-15
; PRIOR APPLICATION NUMBER: 60/212,210
; PRIOR FILING DATE: 2000-06-15
; PRIOR APPLICATION NUMBER: 60/240,816
; PRIOR FILING DATE: 2000-10-17
; PRIOR APPLICATION NUMBER: 60/276,248
; PRIOR FILING DATE: 2001-03-16
; PRIOR APPLICATION NUMBER: 60/277,379
; PRIOR FILING DATE: 2001-03-21
; PRIOR APPLICATION NUMBER: 60/293,499
; PRIOR FILING DATE: 2001-05-25
; NUMBER OF SEQ ID NOS: 3239
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 983
; LENGTH: 254
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-880-748-983

Query Match 88.8%; Score 1110; DB 10; Length 254;
Best Local Similarity 84.2%; Pred. No. 7.1e-73;
Matches 213; Conservative 14; Mismatches 12; Indels 14; Gaps 2;

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Db          1 QVQLQESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----------YFDLWGR 107
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Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAREEGFYDILTGYYGPGYFDYWGK 120

Qy        108 GTLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSW 167
              ||:|||||||||||||||||||||||| ||||||||||||||||||||||||:| ||||||
Db        121 GTMVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSW 180

Qy        168 YQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANS 226
              |||:|||||||:||: | ||||:||||||||:|||||||||||||||||:   |
Db        181 YQQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRS 240

Qy        227 GPLFGGGTKVTVL 239
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Db        241 TRVFGGGTKLTVL 253


RESULT 2
US-09-880-748-839
; Sequence 839, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
;  FILE REFERENCE: PF523
;  CURRENT APPLICATION NUMBER: US/09/880,748
;  CURRENT FILING DATE:  2001-06-15
;  PRIOR APPLICATION NUMBER: 60/212,210
;  PRIOR FILING DATE: 2000-06-15
;  PRIOR APPLICATION NUMBER: 60/240,816
;  PRIOR FILING DATE: 2000-10-17
;  PRIOR APPLICATION NUMBER: 60/276,248
;  PRIOR FILING DATE: 2001-03-16
;  PRIOR APPLICATION NUMBER: 60/277,379
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: 60/293,499
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 3239
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 839
;   LENGTH: 256
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-880-748-839

  Query Match             88.5%;  Score 1106;  DB 10;  Length 256;
  Best Local Similarity   83.9%;  Pred. No. 1.4e-72;
  Matches  213;  Conservative   12;  Mismatches   13;  Indels   16;  Gaps    2;

Qy          2 VQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYYA 61
              ||| :||||:|||||||||||||||||| | ||||||||||||||||||||||||||||
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Qy         62 DSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR---------------YFDLWG 106
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Db         62 DSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDREAYYDILTGYYLYYYYMDVWG 121

Qy        107 RGTLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVS 166
              ||| |||||||||||||||||||||||| |||||||||||||||||||||||:| |||||
Db        122 RGTTVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVS 181

Qy        167 WYQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-AN 225
              ||||:|||||||:||: | ||||:||||||||:|||||||||||||||||:
Db        182 WYQQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTG 241

Qy        226 SGPLFGGGTKVTVL 239
              |  :||||||:|||
Db        242 STRVFGGGTKLTVL 255


RESULT 3
US-09-880-748-1627
; Sequence 1627, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
;  FILE REFERENCE: PF523
;  CURRENT APPLICATION NUMBER: US/09/880,748
;  CURRENT FILING DATE:  2001-06-15
;  PRIOR APPLICATION NUMBER: 60/212,210
;  PRIOR FILING DATE: 2000-06-15
;  PRIOR APPLICATION NUMBER: 60/240,816
;  PRIOR FILING DATE: 2000-10-17
;  PRIOR APPLICATION NUMBER: 60/276,248
;  PRIOR FILING DATE: 2001-03-16
;  PRIOR APPLICATION NUMBER: 60/277,379
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: 60/293,499
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 3239
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1627
;   LENGTH: 252
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-880-748-1627

  Query Match             87.8%;  Score 1097;  DB 10;  Length 252;
  Best Local Similarity   84.5%;  Pred. No. 6.1e-72;
  Matches  212;  Conservative   12;  Mismatches   15;  Indels   12;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| :||||:|||| |||||||||||||| | |||||||||||||||||||||||||
Db          1 QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD----------RYFDLWGRGT 109
              |||||||||||||||||||||||||||||||||||||||          ||| ||:||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARSPGDDILTGYYKYYFDYWGQGT 120

Qy        110 LVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQ 169
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Qy        170 QYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSGP 228
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Db        241 VFGGGTKLTVL 251


RESULT 4
US-09-880-748-981
; Sequence 981, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
;  FILE REFERENCE: PF523
;  CURRENT APPLICATION NUMBER: US/09/880,748
;  CURRENT FILING DATE:  2001-06-15
;  PRIOR APPLICATION NUMBER: 60/212,210
;  PRIOR FILING DATE: 2000-06-15
;  PRIOR APPLICATION NUMBER: 60/240,816
;  PRIOR FILING DATE: 2000-10-17
;  PRIOR APPLICATION NUMBER: 60/276,248
;  PRIOR FILING DATE: 2001-03-16
;  PRIOR APPLICATION NUMBER: 60/277,379
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: 60/293,499
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 3239
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 981
;   LENGTH: 254
;   TYPE: PRT
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;   ORGANISM: Homo sapiens
JS-09-880-748-981

  Query Match             87.7%;  Score 1096;  DB 10;  Length 254;
  Best Local Similarity   84.2%;  Pred. No. 7.3e-72;
  Matches  213;  Conservative   13;  Mismatches   13;  Indels   14;  Gaps    3;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| :||||:|||| |||||||||||||||| | ||||||||||||||||||||||||
Db          1 QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR-YFDL------------WGR 107
              |||||||||||||||||||||||||||| |||||||||| |:|:            |||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAGDTAVYYCARDRGYYDILTGYYRGHGMDVWGR 120

Qy        108 GTLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSW 167
              |||||||||||||||||||||||||| ||||||||||||||||||||:| ||||||
Db        121 GTLVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSW 180

Qy        168 YQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANS 226
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Db        181 YQQHPGKAPKLMIYEGSKRPSGVSNRPSGSKSGNTASLTISGLQAEDEADYYCSSYTTRS 240

Qy        227 GPLFGGGTKVTVL 239
              :||||||:|||
Db        241 TRVFGGGTKLTVL 253


RESULT 5
US-09-880-748-2055
; Sequence 2055, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
;  FILE REFERENCE: PF523
;  CURRENT APPLICATION NUMBER: US/09/880,748
;  CURRENT FILING DATE:  2001-06-15
;  PRIOR APPLICATION NUMBER: 60/212,210
;  PRIOR FILING DATE: 2000-06-15
;  PRIOR APPLICATION NUMBER: 60/240,816
;  PRIOR FILING DATE: 2000-10-17
;  PRIOR APPLICATION NUMBER: 60/276,248
;  PRIOR FILING DATE: 2001-03-16
;  PRIOR APPLICATION NUMBER: 60/277,379
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: 60/293,499
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 3239
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2055
;   LENGTH: 241
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-880-748-2055

  Query Match             87.6%;  Score 1095.5;  DB 10;  Length 241;
  Best Local Similarity   86.2%;  Pred. No. 7.5e-72;
  Matches  207;  Conservative   16;  Mismatches   16;  Indels    1;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| :||| :|||| ||||||||||||:|||:| |||||||||||||||||||||||
Db          1 QVQLVQSGGDVVQPGRSLRLSCAASGFTYSSYAMHWVRQAPGKGLEWVAVISYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDLWGRGTLVTVSSGGGGS 120
              |||||||||||||||||||||||||||||||||||| || ||:|||||||||||||||||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDLDFDYWGQGTLVTVSSGGGGS 120

Qy        121 GGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAPKLLI 180
              |||||||||||| |||| | ||||||:||||||||||:| |||||||||:|||||| :|
Db        121 GGGGSGGGGSQSVLTQPPSASGSPGQSVTISCTGTSSDVGGYNYVSWYQQHPGKAPKFMI 180

Qy        181 YDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFAN-SGPLFGGGTKVTVL 239
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RESULT 6
US-09-880-748-956
; Sequence 956, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
;  FILE REFERENCE: PF523
;  CURRENT APPLICATION NUMBER: US/09/880,748
;  CURRENT FILING DATE:  2001-06-15
;  PRIOR APPLICATION NUMBER: 60/212,210
;  PRIOR FILING DATE: 2000-06-15
;  PRIOR APPLICATION NUMBER: 60/240,816
;  PRIOR FILING DATE: 2000-10-17
;  PRIOR APPLICATION NUMBER: 60/276,248
;  PRIOR FILING DATE: 2001-03-16
;  PRIOR APPLICATION NUMBER: 60/277,379
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: 60/293,499
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 3239
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 956
;   LENGTH: 252
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-880-748-956

  Query Match             87.4%;  Score 1093;  DB 10;  Length 252;
  Best Local Similarity   84.1%;  Pred. No. 1.2e-71;
  Matches  211;  Conservative   12;  Mismatches   16;  Indels   12;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| ||||||:|||||||||||||||||| | |||||||||||||||||||:|||
Db          1 QVQLVESGGGVVQPGGSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSDKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----------YFDLWGRGT 109
              |||||||||||||||||||||||||||||||||||||||||          ||| ||:||
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Qy        110 LVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQ 169
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Db        121 TVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWYQ 180

Qy        170 QYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSGP 228
              |:|||||||:||: | ||||:||||||||||:|||||||| ||||||||||:   |
Db        181 QHPGKAPKLMIYEGSRRPSGVSNRFSGSKSGNTASLTISGPQAEDEADYYCSSYTTRSTR 240

Qy        229 LFGGGTKVTVL 239
              :||||||:|||
Db        241 VFGGGTKLTVL 251


RESULT 7
US-09-880-748-955
; Sequence 955, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
;  FILE REFERENCE: PF523
;  CURRENT APPLICATION NUMBER: US/09/880,748
;  CURRENT FILING DATE:  2001-06-15
;  PRIOR APPLICATION NUMBER: 60/212,210
;  PRIOR FILING DATE: 2000-06-15
;  PRIOR APPLICATION NUMBER: 60/240,816
;  PRIOR FILING DATE: 2000-10-17
;  PRIOR APPLICATION NUMBER: 60/276,248
;  PRIOR FILING DATE: 2001-03-16
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;  PRIOR APPLICATION NUMBER: 60/277,379
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: 60/293,499
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 3239
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 955
;   LENGTH: 251
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-880-748-955

  Query Match           87.2%;  Score 1089.5;  DB 10;  Length 251;
  Best Local Similarity  83.6%;  Pred. No. 2.1e-71;
  Matches  209;  Conservative   14;  Mismatches   16;  Indels   11;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||:|||| |||||||||||||||| | ||||||||||||:| |||| |||
Db          1 EVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVALIWYDGSKKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----------YFDLWGRGTL 110
              |||||||||:|||||||||||||||||||||||||||||              |||||||||:
Db         61 ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAVYYCARSHYDILTGLNYWYFDLWGRGTM 120

Qy        111 VTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQ 170
              |||||||||||||||||||| |||||||||||||||||||||||:| |||||||||
Db        121 VTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWYQQ 180

Qy        171 YPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSGPL 229
              :|||||||:||: | ||||:||||||||||:|||||||||||||||||||||:   |  :
Db        181 HPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRSTRV 240

Qy        230 FGGGTKVTVL 239
              ||||||:|||
Db        241 FGGGTKLTVL 250


RESULT 8
US-09-880-748-1317
; Sequence 1317, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
;  FILE REFERENCE: PF523
;  CURRENT APPLICATION NUMBER: US/09/880,748
;  CURRENT FILING DATE:  2001-06-15
;  PRIOR APPLICATION NUMBER: 60/212,210
;  PRIOR FILING DATE: 2000-06-15
;  PRIOR APPLICATION NUMBER: 60/240,816
;  PRIOR FILING DATE: 2000-10-17
;  PRIOR APPLICATION NUMBER: 60/276,248
;  PRIOR FILING DATE: 2001-03-16
;  PRIOR APPLICATION NUMBER: 60/277,379
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: 60/293,499
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 3239
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1317
;   LENGTH: 251
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-880-748-1317

  Query Match           87.2%;  Score 1089.5;  DB 10;  Length 251;
  Best Local Similarity  83.6%;  Pred. No. 2.1e-71;
  Matches  209;  Conservative   14;  Mismatches   16;  Indels   11;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |: |:|||||:|||| |||||||||||||||| | ||||||||||||:| |||| |||
Db          1 QITLKESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVALIWYDGSKKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----------YFDLWGRGTL 110
              |||||||||:|||||||||||||||||||||||||||||              |||||||||:
Db         61 ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAVYYCARSHYDILTRLNYWYFDLWGRGTL 120

Qy        111 VTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQ 170
              |||||||||||||||||||| |||||||||||||||||||||||:| |||||||||
Db        121 VTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWYQQ 180

Qy        171 YPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSGPL 229
              :|||||||:||: | ||||:||||||||||:|||||||||||||||||||||:   |  :
Db        181 HPGKAPKLVIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRSTRV 240

Qy        230 FGGGTKVTVL 239
              ||||||:|||
Db        241 FGGGTKLTVL 250


RESULT 9
US-09-880-748-1114
; Sequence 1114, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
;  FILE REFERENCE: PF523
;  CURRENT APPLICATION NUMBER: US/09/880,748
;  CURRENT FILING DATE:  2001-06-15
;  PRIOR APPLICATION NUMBER: 60/212,210
;  PRIOR FILING DATE: 2000-06-15
;  PRIOR APPLICATION NUMBER: 60/240,816
;  PRIOR FILING DATE: 2000-10-17
;  PRIOR APPLICATION NUMBER: 60/276,248
;  PRIOR FILING DATE: 2001-03-16
;  PRIOR APPLICATION NUMBER: 60/277,379
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: 60/293,499
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 3239
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1114
;   LENGTH: 251
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-880-748-1114

  Query Match           87.1%;  Score 1088.5;  DB 10;  Length 251;
  Best Local Similarity  83.2%;  Pred. No. 2.5e-71;
  Matches  208;  Conservative   16;  Mismatches   15;  Indels   11;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||:|||||||||||||||||| :||:| ||||||||||:|||||||||| |||
Db          1 EVQLVESGGGVVQPGGSLRLSCAASGFTVNSYAMHWVRQAPGKGLQWVAVISYDGSKKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----------YFDLWGRGTL 110
              |||||||||:|||||||||||||||||||||||||||||              ||||||:||
Db         61 ADSVKGRFTVSRDNSKNTLYLQMNSLRAEDTAVYYCARSHYDILTGLNYWYFDLWGQGTT 120

Qy        111 VTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQ 170
              |||||||||||||||||||| |||||||||||||||||||||||:| |||||||||
Db        121 VTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWYQQ 180

Qy        171 YPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSGPL 229
              :|||||||:||: | ||||:||||||||||:|||||||||||||||||||||:   |  :
Db        181 HPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRSTRV 240

Qy        230 FGGGTKVTVL 239
              ||||||:|||
Db        241 FGGGTKLTVL 250


RESULT 10
US-09-880-748-1003
; Sequence 1003, Application US/09880748
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  Publication No. US20030059937A1
  GENERAL INFORMATION:
   APPLICANT: Ruben et al.
   TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
   FILE REFERENCE: PF523
   CURRENT APPLICATION NUMBER: US/09/880,748
   CURRENT FILING DATE:  2001-06-15
   PRIOR APPLICATION NUMBER: 60/212,210
   PRIOR FILING DATE: 2000-06-15
   PRIOR APPLICATION NUMBER: 60/240,816
   PRIOR FILING DATE: 2000-10-17
   PRIOR APPLICATION NUMBER: 60/276,248
   PRIOR FILING DATE: 2001-03-16
   PRIOR APPLICATION NUMBER: 60/277,379
   PRIOR FILING DATE: 2001-03-21
   PRIOR APPLICATION NUMBER: 60/293,499
   PRIOR FILING DATE: 2001-05-25
   NUMBER OF SEQ ID NOS: 3239
   SOFTWARE: PatentIn Ver. 2.0
  SEQ ID NO 1003
    LENGTH: 253
    TYPE: PRT
    ORGANISM: Homo sapiens
US-09-880-748-1003

  Query Match             86.8%;  Score 1084.5;  DB 10;  Length 253;
  Best Local Similarity   82.9%;  Pred. No. 4.9e-71;
  Matches  209;  Conservative   14;  Mismatches   16;  Indels   13;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||||||||||||||||||||||||||||| | ||||||||||||||  ||| |||
Db          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYWMGWVRQAPGKGLEWVANIKQDGSEKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDL----------WGRG 108
              |||||||||||||:||:||||||||||||||||||: :|:           ||||
Db         61 VDSVKGRFTISRDNAKNSLYLQMNSLRAEDTAVYYCARDQQYDILTGYYIHYGMDVWGRG 120

Qy        109 TLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWY 168
              |||||||||||||||||||||| ||||||||||||||||||||||:| |||||||
Db        121 TLVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWY 180

Qy        169 QQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSG 227
              ||:|||||||:||: | ||||:||||||||||:||||||||||||||||||:   |
Db        181 QQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRST 240

Qy        228 PLFGGGTKVTVL 239
              :||||||:|||
Db        241 RVFGGGTKLTVL 252


RESULT 11
US-09-880-748-1332
; Sequence 1332, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
;  FILE REFERENCE: PF523
;  CURRENT APPLICATION NUMBER: US/09/880,748
;  CURRENT FILING DATE:  2001-06-15
;  PRIOR APPLICATION NUMBER: 60/212,210
;  PRIOR FILING DATE: 2000-06-15
;  PRIOR APPLICATION NUMBER: 60/240,816
;  PRIOR FILING DATE: 2000-10-17
;  PRIOR APPLICATION NUMBER: 60/276,248
;  PRIOR FILING DATE: 2001-03-16
;  PRIOR APPLICATION NUMBER: 60/277,379
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: 60/293,499
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 3239
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1332
;  LENGTH: 251
;  TYPE: PRT
;  ORGANISM: Homo sapiens
US-09-880-748-1332

  Query Match             86.6%;  Score 1082.5;  DB 10;  Length 251;
  Best Local Similarity   83.2%;  Pred. No. 6.8e-71;
  Matches  208;  Conservative   14;  Mismatches   17;  Indels   11;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| :||||:|||| |||||||||||||||| | ||||||||||||||:| |||| |||
Db          1 EVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVALIWYDGSKKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----------YFDLWGRGTL 110
              |||||||||||||||||:|||||||||||| |||||              |||||||||
Db         61 ADSVKGRFTISRDNSKNTVYLQMNSLRAEDTGVYYCARSHYDILTGLNYWYFDLWGRGTL 120

Qy        111 VTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQ 170
              |||||||||||||||||||| ||||||||||||||||||||||||||||||:| |||||||||
Db        121 VTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWYQQ 180

Qy        171 YPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSGPL 229
              :||||||||:||: | ||||:||||||||||:||||||||||||||||||:   |  :
Db        181 HPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRSTRV 240

Qy        230 PGGGTKVTVL 239
              ||||||:|||
Db        241 PGGGTKLTVL 250


RESULT 12
US-09-880-748-1701
; Sequence 1701, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
;  FILE REFERENCE: PF523
;  CURRENT APPLICATION NUMBER: US/09/880,748
;  CURRENT FILING DATE:  2001-06-15
;  PRIOR APPLICATION NUMBER: 60/212,210
;  PRIOR FILING DATE: 2000-06-15
;  PRIOR APPLICATION NUMBER: 60/240,816
;  PRIOR FILING DATE: 2000-10-17
;  PRIOR APPLICATION NUMBER: 60/276,248
;  PRIOR FILING DATE: 2001-03-16
;  PRIOR APPLICATION NUMBER: 60/277,379
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: 60/293,499
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 3239
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1701
;  LENGTH: 254
;  TYPE: PRT
;  ORGANISM: Homo sapiens
US-09-880-748-1701

  Query Match             86.3%;  Score 1079;  DB 10;  Length 254;
  Best Local Similarity   81.8%;  Pred. No. 1.2e-70;
  Matches  207;  Conservative   18;  Mismatches   14;  Indels   14;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              ||||||||||||:|||||||||||||||||:|||||||||||||: || | : ||
Db          1 QVQLQESGGGLVKPGGSLRLSCAASGFTFSSYAMSWVRQAPGKGLEWVSAISGSGGSTYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYF----------DLWGR 107
              |||||||||||||||||||||||||||||||||||||:|: :           |:|||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAKDQTYYDILTGHYYYYGMDVWGR 120

Qy        108 GTLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSW 167
              ||:|||||||||||||||||||| ||||||||||||||||||||||:| ||||||
Db        121 GTMVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSW 180
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Qy        168 YQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANS 226
              |||:|||||||:||: | ||||:||||||||||:||||||||||||||||||||:   |
Db        181 YQQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRS 240

Qy        227 GPLFGGGTKVTVL 239
                :||||||:|||
Db        241 TRVFGGGTKLTVL 253


RESULT 13
US-09-880-748-1759
; Sequence 1759, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
;  FILE REFERENCE: PF523
;  CURRENT APPLICATION NUMBER: US/09/880,748
;  CURRENT FILING DATE:  2001-06-15
;  PRIOR APPLICATION NUMBER: 60/212,210
;  PRIOR FILING DATE: 2000-06-15
;  PRIOR APPLICATION NUMBER: 60/240,816
;  PRIOR FILING DATE: 2000-10-17
;  PRIOR APPLICATION NUMBER: 60/276,248
;  PRIOR FILING DATE: 2001-03-16
;  PRIOR APPLICATION NUMBER: 60/277,379
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: 60/293,499
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 3239
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1759
;   LENGTH: 254
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-880-748-1759

  Query Match             86.3%;  Score 1079;  DB 10;  Length 254;
  Best Local Similarity   82.2%;  Pred. No. 1.2e-70;
  Matches  208;  Conservative   16;  Mismatches   15;  Indels   14;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| :||||:|||| |||||||||||||| | ||||||||||||||||||||| |||
Db          1 QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSIKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDL------------WGR 107
              ||||:|||||||||||||||||||||||||||||||||||||:  :|:            |||
Db         61 ADSVRGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAREGSYDILTGYYVGVGRMDVWGR 120

Qy        108 GTLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSW 167
              ||:|||||||||||||||||||| |||||||||||||||||||||:| ||||||
Db        121 GTMVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSW 180

Qy        168 YQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANS 226
              |||:|||||||:||: | ||||:||||||||||:||||||||||||||||||||:   |
Db        181 YQQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRS 240

Qy        227 GPLFGGGTKVTVL 239
                :||||||:|||
Db        241 TRVFGGGTKLTVL 253


RESULT 14
US-09-880-748-1392
; Sequence 1392, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
;  FILE REFERENCE: PF523
;  CURRENT APPLICATION NUMBER: US/09/880,748
;  CURRENT FILING DATE:  2001-06-15
;  PRIOR APPLICATION NUMBER: 60/212,210
;  PRIOR FILING DATE: 2000-06-15
;  PRIOR APPLICATION NUMBER: 60/240,816
;  PRIOR FILING DATE: 2000-10-17
;  PRIOR APPLICATION NUMBER: 60/276,248
;  PRIOR FILING DATE: 2001-03-16
;  PRIOR APPLICATION NUMBER: 60/277,379
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: 60/293,499
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 3239
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1392
;   LENGTH: 256
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-880-748-1392

  Query Match             86.2%;  Score 1078;  DB 10;  Length 256;
  Best Local Similarity   81.2%;  Pred. No. 1.5e-70;
  Matches  207;  Conservative   18;  Mismatches   14;  Indels   16;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| :|||||||||||||||||||||:| ||||||||||||: || | :|||
Db          1 QVQLVQSGGGLVQPGGSLRLSCAASGFTFSNYDMSWVRQAPGKGLEWVSGISGSGGSKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRY---------------FDLW 105
              ||||||||||||||||:||||:|||||||||||||:|||                ||:|
Db         61 ADSVKGRFTISRDNSKNSLYLQVNSLRAEDTAVYYCAKDRYYDILTGYYIPGLDDAPDIW 120

Qy        106 GRGTLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYV 165
              |:|||||||||||||||||||||| ||||||||||||||||||||:| ||||
Db        121 GQGTLVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYV 180

Qy        166 SWYQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-A 224
              |||||:|||||||:||: | ||||:||||||||||:||||||||||||||||||||:
Db        181 SWYQQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTT 240

Qy        225 NSGPLFGGGTKVTVL 239
                |  :|||||||:|||
Db        241 RSTRVFGGGTKLTVL 255


RESULT 15
US-09-880-748-989
; Sequence 989, Application US/09880748
; Publication No. US20030059937A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Antibodies that Immunospecifically Bind BLyS
;  FILE REFERENCE: PF523
;  CURRENT APPLICATION NUMBER: US/09/880,748
;  CURRENT FILING DATE:  2001-06-15
;  PRIOR APPLICATION NUMBER: 60/212,210
;  PRIOR FILING DATE: 2000-06-15
;  PRIOR APPLICATION NUMBER: 60/240,816
;  PRIOR FILING DATE: 2000-10-17
;  PRIOR APPLICATION NUMBER: 60/276,248
;  PRIOR FILING DATE: 2001-03-16
;  PRIOR APPLICATION NUMBER: 60/277,379
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: 60/293,499
;  PRIOR FILING DATE: 2001-05-25
;  NUMBER OF SEQ ID NOS: 3239
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 989
;   LENGTH: 253
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-880-748-989

  Query Match             86.2%;  Score 1077.5;  DB 10;  Length 253;
  Best Local Similarity   83.3%;  Pred. No. 1.6e-70;
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Matches 210; Conservative 14; Mismatches 15; Indels 13; Gaps 3;

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)y          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| |||||||||||||||||||||||||||:|||||||||||||||: ||  | : ||
)b          1 QVQLVESGGGLVQPGGSLRLSCAASGFTFSSYAMSWVRQAPGKGLEWVSAISGSGGSTYY 60

)y         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR---------YF---DLWGRG 108
              |||||||||||||||||||||||||| |||||||||:|         ||   |:||||
)b         61 ADSVKGRFTISRDNSKNTLYLQMNSLRFEDTAVYYCARERADYDILTGYYFYDMDVWGRG 120

)y        109 TLVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWY 168
              |||||||||||||||||||||||| ||||||||||||||||||||||:| |||||||
)b        121 TLVTVSSGGGGSGGGGSGGGGSQSVLTQPASVSGSPGQSITISCTGTSSDVGGYNYVSWY 180

)y        169 QQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSF-ANSG 227
              ||:|||||||:||: | ||||:||||||||||:|||||||||||||||||||:   |
)b        181 QQHPGKAPKLMIYEGSKRPSGVSNRFSGSKSGNTASLTISGLQAEDEADYYCSSYTTRST 240

)y        228 PLFGGGTKVTVL 239
               :||||||:|||
)b        241 RVFGGGTKLTVL 252
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Search completed: March 15, 2004, 07:36:34
Job time : 407 secs

GenCore version 5.1.6

SM protein - protein search, using sw model

Run on: March 15, 2004, 07:25:43 ; Search time 45 Seconds
(without alignments)
1675.752 Million cell updates/sec

Title: US-09-620-955B-6
Perfect score: 1250
Sequence: 1 QVQLQESGGGLVQPGGSLRL.....CSSFANSGPLFGGGTKVTVL 239

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1017041 seqs, 315518202 residues

Total number of hits satisfying chosen parameters: 1017041

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_25:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	735.5	58.8	298	11	Q9QYF0	Q9qyf0 mus musculu
2	621	49.7	241	11	Q921A6	Q921a6 mus musculu
3	600	48.0	243	11	Q7TQM2	Q7tqm2 mus musculu
4	552.5	44.2	613	4	Q8WUK1	Q8wuk1 homo sapien
5	524	41.9	113	4	Q9UL90	Q9ul90 homo sapien
6	517.5	41.4	218	11	Q925S1	Q925s1 mus musculu
7	509	40.7	116	4	Q9UL93	Q9ul93 homo sapien
8	501	40.1	597	4	Q96BB9	Q96bb9 homo sapien
9	494	39.5	147	4	Q9Y509	Q9y509 homo sapien
10	489.5	39.2	122	4	Q9UL84	Q9ul84 homo sapien
11	487	39.0	121	4	Q9UL71	Q9ul71 homo sapien
12	485.5	38.8	479	11	Q91WP5	Q91wp5 mus musculu
13	484.5	38.8	118	4	Q9UL91	Q9ul91 homo sapien
14	482.5	38.6	118	4	Q9UL72	Q9ul72 homo sapien
15	471	37.7	487	11	Q99KA4	Q99ka4 mus musculu
16	465.5	37.2	112	4	Q9HCC1	Q9hcc1 homo sapien
17	465.5	37.2	493	4	Q8NCL6	Q8ncl6 homo sapien
18	459.5	36.8	473	11	Q91Z05	Q91z05 mus musculu
19	458.5	36.7	499	4	Q8N5K4	Q8n5k4 homo sapien
20	457	36.6	494	4	Q96K68	Q96k68 homo sapien
21	456.5	36.5	487	11	Q80ZI7	Q80zi7 mus musculu
22	450	36.0	95	4	Q9ULB6	Q9ulb6 homo sapien
23	450	36.0	119	11	Q920E7	Q920e7 mus musculu
24	450	36.0	573	4	Q8WU38	Q8wu38 homo sapien
25	441.5	35.3	482	4	Q7Z351	Q7z351 homo sapien
26	440.5	35.2	486	11	Q91Z07	Q91z07 mus musculu
27	438.5	35.1	480	11	Q91XE1	Q91xe1 mus musculu
28	437.5	35.0	470	4	Q7Z5W1	Q7z5w1 homo sapien
29	426.5	34.1	437	11	Q9R1A4	Q9r1a4 mus musculu
30	425.5	34.0	469	11	Q8R3V9	Q8r3v9 mus musculu
31	423	33.8	484	11	Q8VEA0	Q8vea0 mus musculu
32	416.5	33.3	521	4	Q8N4Y9	Q8n4y9 homo sapien
33	413	33.0	131	4	Q9UL88	Q9ul88 homo sapien
34	403	32.2	479	11	Q7TMK4	Q7tmk4 mus musculu
35	398.5	31.9	237	4	Q8WTU6	Q8wtu6 homo sapien
36	397.5	31.8	237	4	Q8WUK4	Q8wuk4 homo sapien
37	394	31.5	236	4	Q96E61	Q96e61 homo sapien
38	388.5	31.1	170	11	Q925S2	Q925s2 mus musculu
39	379.5	30.4	124	6	Q9N0W6	Q9n0w6 oryctolagus
40	377.5	30.2	124	6	Q9N0W4	Q9n0w4 oryctolagus
41	376	30.1	236	4	Q8NEJ1	Q8nej1 homo sapien
42	375.5	30.0	110	4	Q8TE63	Q8te63 homo sapien
43	373	29.8	104	4	Q9UL87	Q9ul87 homo sapien
44	370.5	29.6	124	4	Q9UL92	Q9ul92 homo sapien
45	367.5	29.4	484	11	Q99LA6	Q99la6 mus musculu

ALIGNMENTS

RESULT 1
Q9QYF0
ID Q9QYF0 PRELIMINARY; PRT; 298 AA.
AC Q9QYF0;
DT 01-MAY-2000 (TrEMBLrel. 13, Created)
DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE CN 8 scFv.
GN CN 8.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Balb/c; TISSUE=Spleen;
RX MEDLINE=20183931; PubMed=10706631;
RA Shinohara N., Demura T., Fukuda H.;
RT "Isolation of a vascular cell wall-specific monoclonal antibody
RT recognizing a cell polarity by using a phage display subtraction
RT method.";
RL Proc. Natl. Acad. Sci. U.S.A. 97:2585-2590(2000).
DR EMBL; AB036341; BAA88633.1; -.
DR PIR; A33933; A33933.
DR PIR; S19112; S19112.
DR HSSP; P01607; 1REI.
DR InterPro; IPR007110; Ig-like.
DR InterPro; IPR003596; Ig_v.
DR Pfam; PF00047; ig; 2.
DR SMART; SM00406; IGv; 2.
DR PROSITE; PS50835; IG_LIKE; 2.
SQ SEQUENCE 298 AA; 31867 MW; E0F96B8A17004317 CRC64;

Query Match 58.8%; Score 735.5; DB 11; Length 298;
Best Local Similarity 59.1%; Pred. No. 9.1e-50;
Matches 143; Conservative 35; Mismatches 57; Indels 7; Gaps 3;

Qy 1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60

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Db         40 QVKLQQSGGGLVKPGGSLKLSCAASGSDFSRYWMSWVRQAPGKGLEWIGEINPDSSTINY 99

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFD---LWGRGTLVTVSSGG 117
              |:| :| ||||||:|||||||| :|:||||:|||||  |:     ||:|| |||||||
Db        100 TPSLKDKFIISRDNAKNTLYLQMSKVRSEDTALYYCARASYYGHSAYWGQGTTVTVSSGG 159

Qy        118 GGSGGGGSGGGGSQSALTQ-PASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAP 176
              |||||||||||||    ||| |||:|  | |:::||:|  : :    :||::|||| ||:|
Db        160 GGSGGGGSGGGGSDIELTQSPASLSASVGETVTITCRASGN---IHNYLAWYQQKQGKSP 216

Qy        177 KLLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGPLFGGGTKV 236
              :||:|:      |: :||||| ||   || |: || ||   ||| |  :  ||||||:
Db        217 QLLVYNAKTLADGVPSRFSGSGSGTQYSLKINSLQPEDFGSYYCQHFWTTPYTFGGGTKL 276

Qy        237 TV 238
               :
Db        277 EI 278


RESULT 2
Q921A6
ID   Q921A6      PRELIMINARY;      PRT;   241 AA.
AC   Q921A6;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Anti-CEA 79 single chain Fv fragment (Fragment).
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=98170165; PubMed=9509426;
RA   Chung J.H., Choi S.J., Kim H.J., Kim I.J., Choi I.H., Lee S.D.,
RA   Yi K.S., Suh P.G., Ryu S.H., Chung H.K.;
RT   "Cloning and characterization of cDNAs encoding VH and VL of a
RT   monoclonal anti-CEA antibody (CEA 79) cross-reactive with NCA-95 and
RT   generation of a single-chain Fv molecule (scFv).";
RL   Mol. Cells 7:816-819(1997).
DR   EMBL; U88067; AAB48044.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00406; IGv; 2.
DR   PROSITE; PS50835; IG_LIKE; 2.
FT   NON_TER       1       1
FT   NON_TER     241     241
SQ   SEQUENCE   241 AA;  26086 MW;  0276887248E9C771 CRC64;

  Query Match             49.7%;  Score 621;  DB 11;  Length 241;
  Best Local Similarity   53.7%;  Pred. No. 6.6e-41;
  Matches  131;  Conservative   33;  Mismatches   64;  Indels   16;  Gaps    7;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              ||:||:||  | :|| ::::|| |||:||: | |:||:|||||||:|:  |:       |
Db          1 QVKLQQSGPELKKPGETVKISCKASGYTFTDYGMNWVKQAPGKGLKWMGWINTYTGEPTY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD---RYFDLWGRGTLVTVSSGG 117
              ||  |||| | : | :| |||:|:|: |||| |:|||    |||| ||:|| |||||||
Db         61 ADDFKGRFAFSLETSASTAYLQINNLKNEDTATYFCARKDLLRYFDYWGQGTTVTVSSGG 120

Qy        118 GGSGGGGSGGGGSQSALTQ-PASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAP 176
              |||||||||||||   ||| |:|:| | |  :||:|  | ||    |::|||  ||| |
Db        121 GGSGGGGSGGGGSDIELTQSPSSLSASLGGKVTITCK-ASQDIN--KYIAWYQHKPGKGP 177

Qy        177 K----LLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGPLFGG 232
              :    | ||       || :||||| ||   | :|| |: || | |||  : |    |||
Db        178 RSAHTLHIY----IQPGIPSRFSGSGSGRDYSFSISNLEPEDIATYYCLHYDNL-HTFGG 232

Qy        233 GTKV 236
              |||:
Db        233 GTKL 236


RESULT 3
Q7TQM2
ID   Q7TQM2      PRELIMINARY;      PRT;   243 AA.
AC   Q7TQM2;
DT   01-OCT-2003 (TrEMBLrel. 25, Created)
DT   01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   ScFv 6H8 protein (Fragment).
GN   SCFV 6H8.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Balb/C;
RA   Peter J.C., Eftekhari P., Billiald P., Wallukat G.;
RT   "scFv single chain antibody variable fragment as inverse agonist for
RT   the beta-2 adrenergic receptor.";
RL   Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ574851; CAE00495.1; -.
FT   NON_TER       1       1
SQ   SEQUENCE   243 AA;  25976 MW;  BEFFF64D2DCF4F76 CRC64;

  Query Match             48.0%;  Score 600;  DB 11;  Length 243;
  Best Local Similarity   52.3%;  Pred. No. 2.9e-39;
  Matches  126;  Conservative   40;  Mismatches   67;  Indels    8;  Gaps    7;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSN-KY 59
              ||||:||  ||:|| |::||| |||:||::| | ||:|  |:||||:  | | ||
Db          1 QVQLQQSGSELVRPGASVKLSCKASGYTFTTYWMHWVKQRHGQGLEWIGNI-YPGSGITN 59

Qy         60 YADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR-DRYFDLWGRGTLVTVSSGGG 118
              | :  | :  :: | | :| |: ::|| :|||:|||||||  |  |:|| || :|||||||
Db         60 YDEKFKNKGILTVDTSSSTAYMHLSSLASEDSAVYYCARGGRGLDVWGAGTTLTVSSGGG 119

Qy        119 GSGGGGSGGGGSQSALTQ-PASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAPK 177
              |||||||||||   :|| :| | | |  :||:|   | ||  || ::|||| || ||:
Db        120 GSGGGGSGGGGSDIQMTQSSSSFSVSLGDRVTITCK-ASEDI--YNRLAWYQQKPGNAPR 176

Qy        178 LLIYDVSNRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGPLFGGGTKVT 237
              |||   ::  :|: :||||| ||   :|:|: || || | |||  :  |   ||||||:
Db        177 LLISGATSLETGVPSRFSGSGSGKDYTLSITSLQTEDVATYYCQQYW-STRTFGGGTKLE 235

Qy        238 V 238
               :
Db        236 I 236


RESULT 4
Q8WUK1
ID   Q8WUK1      PRELIMINARY;      PRT;   613 AA.
AC   Q8WUK1;
DT   01-MAR-2002 (TrEMBLrel. 20, Created)
DT   01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Hypothetical protein.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Tonsil;
RA   Strausberg R.;
RL   Submitted (DEC-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC020240; AAH20240.1; -.
DR   PIR; PL0120; PL0120.
DR   PIR; S15590; S15590.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
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)R   InterPro; IPR003596; Ig_v.
)R   Pfam; PF00047; ig; 5.
)R   SMART; SM00406; IGv; 1.
)R   PROSITE; PS50835; IG_LIKE; 5.
)R   PROSITE; PS00290; IG_MHC; 3.
CW   Hypothetical protein.
SQ   SEQUENCE   613 AA;  67296 MW;  60C7F5950671E315 CRC64;

  Query Match             44.2%;  Score 552.5;  DB 4;  Length 613;
  Best Local Similarity   54.1%;  Pred. No. 4.8e-35;
  Matches  125;  Conservative   19;  Mismatches   44;  Indels   43;  Gaps    9;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| ||||||:|||| |||||||||||||||| | ||||||||||||||||||||||||
Db         20 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSNKYY 79

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD-----RYFDLWGRGTLVTVSS 115
              ||||||||||||||||||||||||||||||||||:|       ||:||:||:|||||
Db         80 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAKDWSEGVETFDIWGQGTMVTVSS 139

Qy        116 GGGGSGGGGSGGGGSQSALTQPASVSGSPG--QSITISCTGTSSDIGAYNYV------SW 167
              | | |  |  |  ||   |: : |      | :::      ||
Db        140 ----------GSASAPTLFPLVSCENSPSDTSSVAVGCL-------AQDFLPDSITFSW 181

Qy        168 YQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISG---LQAEDE 215
                :|   :      |:|:   |  :   | |  |: : :   :|  ||
Db        182 --KYKNNS------DISS-TRGFPSVLRGGKYAATSQVLLPSKDVMQGTDE 223


RESULT 5
Q9UL90
ID   Q9UL90      PRELIMINARY;      PRT;   113 AA.
AC   Q9UL90;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Myosin-reactive immunoglobulin heavy chain variable region
DE   (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=98277139; PubMed=9614934;
RA   Wu X., Liu B., Van der Merwe P.L., Kalis N.N., Berney S.M.,
RA   Young D.C.;
RT   "Myosin-reactive autoantibodies in rheumatic carditis and normal
RT   fetus.";
RL   Clin. Immunol. Immunopathol. 87:184-192(1998).
DR   EMBL; AF035024; AAD56260.1; -.
DR   HSSP; P01772; 2FB4.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
FT   NON_TER       1       1
FT   NON_TER     113     113
SQ   SEQUENCE   113 AA;  12437 MW;  ED57FDD19086D07F CRC64;

  Query Match             41.9%;  Score 524;  DB 4;  Length 113;
  Best Local Similarity   87.8%;  Pred. No. 1e-33;
  Matches  101;  Conservative    5;  Mismatches    7;  Indels    2;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||:|||||||||||||||||||| | |||||||||||||| | ||||||||
Db          1 EVQLVESGGGVVQPGGSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAFIRYDGSNKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDLWGRGTLVTVSS 115
              ||||||||||||||||||||||||||||||||||:|   : ||:|||||||||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAKD--LNYWGQGTLVTVSS 113


RESULT 6
Q925S1
ID   Q925S1      PRELIMINARY;      PRT;   218 AA.
AC   Q925S1;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   MRP5 (Fragment).
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=BALB/c;
RX   PubMed=11819679;
RA   Cui D., Zeng G., Yan X., Wang F., Tian F., Ren D., Zhao T., Li X.,
RA   Su C.;
RT   "Mechanism of exogenous nucleic acids and their precursors improving
RT   the repair of intestinal epithelium after irradiation in mice.";
RL   World J. Gastroenterol. 6:709-717(2000).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=BALB/c;
RA   Cui D., Zeng G., Yan X., Li X., Su C.;
RT   "Cloning of mouse genes related to repairing of intestinal epithelium
RT   of the irradiated mice by treatment with the intestinal RNA of mice of
RT   the same strain.";
RL   Int. J. Radiat. Biol. Relat. Stud. Phys. Chem. Med. 19:71-80(2001).
DR   EMBL; AF240168; AAK43733.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
FT   NON_TER     218     218
SQ   SEQUENCE   218 AA;  23013 MW;  527E4FA8F7982817 CRC64;

  Query Match             41.4%;  Score 517.5;  DB 11;  Length 218;
  Best Local Similarity   50.7%;  Pred. No. 7.4e-33;
  Matches  108;  Conservative   35;  Mismatches   63;  Indels    7;  Gaps    4;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              ||:||:||  | :|| ::|:|| |||:||::  | ||:: |||||:|:  |:       |
Db          3 QVKLQQSGPELKKPGETVRISCKASGYTFTTAGMQWVQKMPGKGLKWIGWINTHSGVPKY 62

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR---DRYFDLWGRGTLVTVSSGG 117
              |:  ||||  | : | :| |||:::|: |||| |:| |   |  |  ||:|| |||||||
Db         63 AEEFKGRFAFSLETSASTAYLQISNLKNEDTATYFCMRWDYDGGFAYWGQGTTVTVSSGG 122

Qy        118 GGSGGGGSGGGGSQSALTQ-PASVSGSPGQSITISCTGTSS--DIGAYNYVSWYQQYPGK 174
              |||||||||| |||    ||| |||:: | ||  ||||  :  |  :||  ::::|:|| ||:
Db        123 GGSGGGGSGSGGSDIVLTQSPASLAVSLGQRATISCRASESVDNIG-ISFMNWFQQKPGQ 181

Qy        175 APKLLIYDVSNRPSGISNRFSGSKSGDTASLTI 207
              ||||||  | : ||:       | ||    || |
Db        182 PPKLLIYAASKQGSGVPAGLLASGSGTDFSLNI 214


RESULT 7
Q9UL93
ID   Q9UL93      PRELIMINARY;      PRT;   116 AA.
AC   Q9UL93;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Myosin-reactive immunoglobulin heavy chain variable region
DE   (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
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RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=98277139; PubMed=9614934;
RA   Wu X., Liu B., Van der Merwe P.L., Kalis N.N., Berney S.M.,
RA   Young D.C.;
RT   "Myosin-reactive autoantibodies in rheumatic carditis and normal
RT   fetus.";
RL   Clin. Immunol. Immunopathol. 87:184-192(1998).
DR   EMBL; AF035021; AAD56257.1; -.
DR   PIR; PL0120; PL0120.
DR   HSSP; P01772; 2FB4.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
FT   NON_TER       1      1
FT   NON_TER     116    116
SQ   SEQUENCE   116 AA;  12434 MW;  0DA0348154DD6061 CRC64;

  Query Match             40.7%;  Score 509;  DB 4;  Length 116;
  Best Local Similarity   87.1%;  Pred. No. 1.6e-32;
  Matches  101;  Conservative    4;  Mismatches    9;  Indels    2;  Gaps    1;

Qy          2 VQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYYA 61
              ||| |||||:|||| |||||||||||||||:| |||||||||||||||||||||||||
Db          1 VQLVESGGGVVQPGRSLRLSCAASGFTFSSYAMHWVRQAPGKGLEWVAVISYDGSNKYYA 60

Qy         62 DSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDL--WGRGTLVTVSS 115
              |||||||||||||||||||||||||||||:||||      |  ||:||||||||
Db         61 DSVKGRFTISRDNSKNTLYLQMNSLRAEDTAMYYCAGGGGLGLGYWGQGTLVTVSS 116


RESULT 8
Q96BB9
ID   Q96BB9      PRELIMINARY;      PRT;   597 AA.
AC   Q96BB9;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Hypothetical protein.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=B-cell;
RA   Strausberg R.;
RL   Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC015760; AAH15760.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 5.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 5.
DR   PROSITE; PS00290; IG_MHC; 3.
KW   Hypothetical protein.
SQ   SEQUENCE   597 AA;  65039 MW;  4FCA3AD8ECE263D9 CRC64;

  Query Match             40.1%;  Score 501;  DB 4;  Length 597;
  Best Local Similarity   49.6%;  Pred. No. 5e-31;
  Matches  117;  Conservative   24;  Mismatches   47;  Indels   48;  Gaps   10;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||||||||||||||||:||||:|:|||||||||||: ||  | : ||
Db         20 EVQLLESGGGLVQPGGSLRLSCAASGFSFSSYAMNWVRQAPGKGLEWVSAISGSGGSTYY 79

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD--------RYF--DLWGRGTL 110
              ||||||||||||::|||||||||||||||||:|         |   | ||:|||
Db         80 ADSVKGRFTISRDNSRDTLYLQMNSLRAEDTAVYYCAKDPRGYSASGNYTREDYWGQGTL 139

Qy        111 VTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPG--QSITISCTGTSSDIGAYNYV--- 165
              |||||           |  |  |   |  ||    |: : |       | :::
Db        140 VTVSS-----------GSASAPTLFPLVSCENSPSDTSSVAVGCL-------AQDFLPDS 181

Qy        166 ---SWYQQYPGKAPKLLIYDVSNRPSGISNRFSGSKSGDTASLTISG---LQAEDE 215
                 ||  :|   :      |:|:   |  :   | |   |: : :     :| ||
Db        182 ITFSW--KYKNNS------DISS-TRGFPSVLRGGKYAATSQVLLPSKDVMQGTDE 228


RESULT 9
Q9Y509
ID   Q9Y509      PRELIMINARY;      PRT;   147 AA.
AC   Q9Y509;
DT   01-NOV-1999 (TrEMBLrel. 12, Created)
DT   01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   VH3 protein (Fragment).
GN   VH3.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=96071149; PubMed=7475288;
RA   Cao J., Vescio R.A., Rettig M.B., Hong C.H., Kim A., Lee J.C.,
RA   Lichtenstein A.K., Berenson J.R.;
RT   "A CD10-positive subset of malignant cells is identified in multiple
RT   myeloma using PCR with patient-specific immunoglobulin gene primers.";
RL   Leukemia 9:1948-1953(1995).
DR   EMBL; S80860; AAD14339.1; -.
DR   HSSP; P01772; 2FB4.
DR   GO; GO:0005887; C:integral to plasma membrane; NAS.
DR   GO; GO:0016489; F:immunoglobulin receptor activity; NAS.
DR   GO; GO:0016066; P:cellular defense response (sensu Vertebrata); NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   147 AA;  15768 MW;  8489FCAAA7BC925C CRC64;

  Query Match             39.5%;  Score 494;  DB 4;  Length 147;
  Best Local Similarity   67.9%;  Pred. No. 3.2e-31;
  Matches  106;  Conservative    8;  Mismatches   22;  Indels   20;  Gaps    4;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              || | |||||:|||| |||||| ||||||||:| |||||||||||||:|||:||||||| :||
Db          1 QVHLVESGGGVVQPGKSLRLSCEASGFTFSTYGMSWVRQAPGKGLDWVALISYDGSTQYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD-RYF----------DLWGRGT 109
              | |||||||||||||||||||||| ||| |||||||||:|  ||          | ||:||
Db         61 AGSVKGRFTISRDNSKNTLYLQMTSLRVEDTAVYYCAKDGNYFDSVGYYYAGIDYWGQGT 120

Qy        110 LVTVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPG 145
              ||||||          |  |  |   |  |:| | | |
Db        121 LVTVSS--------ASTKGPSVFPLA-PSSKSTSGG 147


RESULT 10
Q9UL84
ID   Q9UL84      PRELIMINARY;      PRT;   122 AA.
AC   Q9UL84;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Myosin-reactive immunoglobulin heavy chain variable region
DE   (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
```

```
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=98277139; PubMed=9614934;
RA   Wu X., Liu B., Van der Merwe P.L., Kalis N.N., Berney S.M.,
RA   Young D.C.;
RT   "Myosin-reactive autoantibodies in rheumatic carditis and normal
RT   fetus.";
RL   Clin. Immunol. Immunopathol. 87:184-192(1998).
DR   EMBL; AF035030; AAD56266.1; -.
DR   HSSP; P01772; 2FB4.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
FT   NON_TER       1      1
FT   NON_TER     122    122
SQ   SEQUENCE   122 AA;  13579 MW;  36054D41366545B8 CRC64;

  Query Match             39.2%;  Score 489.5;  DB 4;  Length 122;
  Best Local Similarity   78.7%;  Pred. No. 5.7e-31;
  Matches   96;  Conservative    7;  Mismatches   12;  Indels    7;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||:|||| ||||||||| ||||:| | |||||||||||||| || |||||:|
Db          1 EVQLVESGGGVVQPGRSLRLSCAASRFTFSNYGMHWVRQAPGKGLEWVAAISNDGSNKFY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR-------YFDLWGRGTLVTV 113
              |||||||||| |||||| : |||||||||||||||||:|       ||| ||:||||||
Db         61 ADSVKGRFTIFRDNSKNMMDLQMNSLRAEDTAVYYCAKDERGRLVGTYFDYWGQGTLVTV 120

Qy        114 SS 115
              ||
Db        121 SS 122


RESULT 11
Q9UL71
ID   Q9UL71      PRELIMINARY;      PRT;   121 AA.
AC   Q9UL71;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Myosin-reactive immunoglobulin heavy chain variable region
DE   (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=98277139; PubMed=9614934;
RA   Wu X., Liu B., Van der Merwe P.L., Kalis N.N., Berney S.M.,
RA   Young D.C.;
RT   "Myosin-reactive autoantibodies in rheumatic carditis and normal
RT   fetus.";
RL   Clin. Immunol. Immunopathol. 87:184-192(1998).
DR   EMBL; AF035043; AAD56279.1; -.
DR   HSSP; P01772; 2FB4.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
FT   NON_TER       1      1
FT   NON_TER     121    121
SQ   SEQUENCE   121 AA;  13154 MW;  2F045CCFA5D50736 CRC64;

  Query Match             39.0%;  Score 487;  DB 4;  Length 121;
  Best Local Similarity   76.0%;  Pred. No. 8.8e-31;
  Matches   92;  Conservative   13;  Mismatches   10;  Indels    6;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| ||||||:||||||||| |||||||| ||||:| | |||||||||||||::|| || : ||
Db          1 EVQLVESGGGVVQPGGSLRLFCAASGFTFDGYAMHWVRQAPGKGLEWVSLISGDGGSTYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRY------FDLWGRGTLVTVS 114
              |||||||||||||||||:|||||||||||||||:|||: :       ||:||:|||:||||
Db         61 ADSVKGRFTISRDNSKNSLYLQMNSLRAEDTALYYCAKGKVTTIYDRFDIWGQGTMVTVS 120

Qy        115 S 115
              |
Db        121 S 121


RESULT 12
Q91WP5
ID   Q91WP5      PRELIMINARY;      PRT;   479 AA.
AC   Q91WP5;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Hypothetical protein.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Colon;
RA   Strausberg R.;
RL   Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC013656; AAH13656.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 4.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 4.
DR   PROSITE; PS00290; IG_MHC; 2.
KW   Hypothetical protein.
SQ   SEQUENCE   479 AA;  51603 MW;  ECB2D0877748584F CRC64;

  Query Match             38.8%;  Score 485.5;  DB 11;  Length 479;
  Best Local Similarity   44.9%;  Pred. No. 6.3e-30;
  Matches  110;  Conservative   38;  Mismatches   44;  Indels   53;  Gaps    9;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||||:|||||::|||||| |||:|:|||||||:| | ||||| |: :| | ||
Db         20 EVQLVESGGGLVKPGGSLKVSCAASGLTFSNYAMSWVRQSPEKRLEWVAAINSNGGNTYY 79

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDLWGRGTLVTVSSGGGGS 120
              :|::||||||||||:|:||||||:|||:|||| ||| |  |||:|| || ||||
Db         80 SDTMKGRFTISRDNAKSTLYLQMSSLRSEDTAFYYCVRGGYFDVWGAGTAVTVS------ 133

Qy        121 GGGGSGGGGSQSA-------LTQPASVSGSPGQSITISC-------TGTSSDIGAYNYVS 166
                      |: |       || | ::|  |   : | |       :|| :       |:
Db        134 ---------SEPAREPTIYPLTFPQALSSDP---VIIGCLIHDYFPSGTMN-------VT 174

Qy        167 WYQQYPGKAPKLLIYDVS--NRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCSSFA 224
              |     ||: |    |::  | |  ::   || :   :: ||:  ::  :     ||
Db        175 W-----GKSGK----DITTVNFPPALA---SGGRYTMSSQLTLPAVECPEGESVKCSVQH 222

Qy        225 NSGPL 229
              :| |:
Db        223 DSNPV 227


RESULT 13
Q9UL91
ID   Q9UL91      PRELIMINARY;      PRT;   118 AA.
AC   Q9UL91;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Myosin-reactive immunoglobulin heavy chain variable region
```

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DE   (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=98277139; PubMed=9614934;
RA   Wu X., Liu B., Van der Merwe P.L., Kalis N.N., Berney S.M.,
RA   Young D.C.;
RT   "Myosin-reactive autoantibodies in rheumatic carditis and normal
RT   fetus.";
RL   Clin. Immunol. Immunopathol. 87:184-192(1998).
DR   EMBL; AF035023; AAD56259.1; -.
DR   PIR; S21205; S21205.
DR   HSSP; P01772; 2FB4.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
FT   NON_TER       1      1
FT   NON_TER     118    118
SQ   SEQUENCE   118 AA;  12843 MW;  D0633949F2AC149D CRC64;

  Query Match             38.8%;  Score 484.5;  DB 4;  Length 118;
  Best Local Similarity   81.2%;  Pred. No. 1.3e-30;
  Matches   95;  Conservative    8;  Mismatches   11;  Indels    3;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||||||||||||||||||||||||:||||||||||||: ||      ||
Db          1 EVQLVESGGGLVQPGGSLRLSCAASGFTFSSYSMNWVRQAPGKGLEWVSYISSTIITIYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR---DRYFDLWGRGTLVTVS 114
              |||||||||||||:||:|||||||||||||||||||      ||:||:||:||||
Db         61 ADSVKGRFTISRDNAKNSLYLQMNSLRAEDTAVYYCARGDSSEAFDIWGQGTMVTVS 117


RESULT 14
Q9UL72
ID   Q9UL72       PRELIMINARY;      PRT;   118 AA.
AC   Q9UL72;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Myosin-reactive immunoglobulin heavy chain variable region
DE   (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=98277139; PubMed=9614934;
RA   Wu X., Liu B., Van der Merwe P.L., Kalis N.N., Berney S.M.,
RA   Young D.C.;
RT   "Myosin-reactive autoantibodies in rheumatic carditis and normal
RT   fetus.";
RL   Clin. Immunol. Immunopathol. 87:184-192(1998).
DR   EMBL; AF035042; AAD56278.1; -.
DR   PIR; S21205; S21205.
DR   HSSP; P01772; 2FB4.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
FT   NON_TER       1      1
FT   NON_TER     118    118
SQ   SEQUENCE   118 AA;  12872 MW;  B4D1A5944B2D5CCA CRC64;

  Query Match             38.6%;  Score 482.5;  DB 4;  Length 118;
  Best Local Similarity   81.5%;  Pred. No. 1.9e-30;
  Matches   97;  Conservative    7;  Mismatches   10;  Indels    5;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||||||||||||||||||| ||   |:||||||||||| :| :| | : ||
Db          1 EVQLVESGGGLVQPGGSLRLSCAASGFTVSSNYMNWVRQAPGKGLESVSV-TYSGGSSYY 59

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRY----FDLWGRGTLVTVSS 115
              |||||||||||||||||||||||||||||| |||||||:    || ||:||||||||
Db         60 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAFYYCARDRFGEFLFDYWGQGTLVTVSS 118


RESULT 15
Q99KA4
ID   Q99KA4       PRELIMINARY;      PRT;   487 AA.
AC   Q99KA4;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Hypothetical protein.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Strausberg R.;
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC004786; AAH04786.1; -.
DR   HSSP; P01810; 2FBJ.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 4.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 4.
DR   PROSITE; PS00290; IG_MHC; 2.
KW   Hypothetical protein.
SQ   SEQUENCE   487 AA;  52554 MW;  7DC8E96DB333077B CRC64;

  Query Match             37.7%;  Score 471;  DB 11;  Length 487;
  Best Local Similarity   46.4%;  Pred. No. 8.8e-29;
  Matches  111;  Conservative   30;  Mismatches   50;  Indels   48;  Gaps    9;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||||:|||||:|||||||||||||:|||||| | | ||||| || || ||
Db         20 EVQLVESGGGLVKPGGSLKLSCAASGFTFSSYAMSWVRQTPEKRLEWVATISDGGSYTYY 79

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD---------RYFDLWGRGTLV 111
              |:||||||||||:|| ||||||: |::||||:||||||           || ||:|| :
Db         80 PDNVKGRFTISRDNAKNNLYLQMSHLKSEDTAMYYCARDMGGSPYGGYSRFDYWGQGTTI 139

Qy        112 TVSSGGGGSGGGGSGGGGSQSALTQPASVSGSPGQSITISC-------TGTSSDIGAYNY 164
              ||||          |    :   || | ::|  |   : | |       :|| :
Db        140 TVSS--------ESARNPTIYPLTLPRALSSDP---VIIGCLIHDYFPSGTMN------- 181

Qy        165 VSWYQQYPGKAPKLLIYDVS--NRPSGISNRFSGSKSGDTASLTISGLQAEDEADYYCS 221
              |:|     ||: |    |::  | |  ::   ||     :: ||:  ::  :     ||
Db        182 VTW-----GKSGK----DITTVNFPPALA---SGGGYTMSSQLTLPAVECPEGESVKCS 228


Search completed: March 15, 2004, 07:27:20
Job time : 47 secs
```

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 15, 2004, 07:25:43 ; Search time 17 Seconds
(without alignments)
732.045 Million cell updates/sec

Title: US-09-620-955B-6
Perfect score: 1250
Sequence: 1 QVQLQESGGGLVQPGGSLRL.....CSSFANSGPLFGGGTKVTVL 239

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 141681 seqs, 52070155 residues

Total number of hits satisfying chosen parameters: 141681

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	507.5	40.6	122	1	HV3G_HUMAN	P01768 homo sapien
2	488	39.0	112	1	LV2K_HUMAN	P04209 homo sapien
3	478	38.2	119	1	HV3I_HUMAN	P01770 homo sapien
4	472	37.8	121	1	HV3J_HUMAN	P01771 homo sapien
5	468.5	37.5	111	1	LV2B_HUMAN	P01705 homo sapien
6	465.5	37.2	111	1	LV2A_HUMAN	P01704 homo sapien
7	462.5	37.0	122	1	HV3H_HUMAN	P01769 homo sapien
8	454.5	36.4	111	1	LV2D_HUMAN	P01707 homo sapien
9	453.5	36.3	126	1	HV3K_HUMAN	P01772 homo sapien
10	452.5	36.2	114	1	HV3B_HUMAN	P01763 homo sapien
11	452	36.2	117	1	HV3C_HUMAN	P01764 homo sapien
12	449.5	36.0	111	1	LV2H_HUMAN	P01711 homo sapien
13	444	35.5	115	1	HV3D_HUMAN	P01765 homo sapien
14	443	35.4	115	1	HV3F_HUMAN	P01767 homo sapien
15	439.5	35.2	111	1	LV2F_HUMAN	P01709 homo sapien
16	437.5	35.0	119	1	HV3M_HUMAN	P01774 homo sapien
17	435.5	34.8	111	1	LV2G_HUMAN	P01710 homo sapien
18	435.5	34.8	119	1	HV3N_HUMAN	P01775 homo sapien
19	435.5	34.8	136	1	HV16_MOUSE	P01783 mus musculu
20	434.5	34.8	109	1	LV2E_HUMAN	P01708 homo sapien
21	433.5	34.7	116	1	HV05_CARAU	P19181 carassius a
22	432.5	34.6	116	1	HV3T_HUMAN	P01781 homo sapien
23	430	34.4	119	1	HV3L_HUMAN	P01773 homo sapien
24	430	34.4	120	1	HV3E_HUMAN	P01766 homo sapien
25	428.5	34.3	117	1	HV3O_HUMAN	P01776 homo sapien
26	425	34.0	110	1	LV2J_HUMAN	P01713 homo sapien
27	423.5	33.9	111	1	LV2C_HUMAN	P01706 homo sapien
28	422.5	33.8	122	1	HV3A_HUMAN	P01762 homo sapien
29	421.5	33.7	119	1	HV38_MOUSE	P01808 mus musculu
30	417.5	33.4	120	1	HV3U_HUMAN	P01782 homo sapien
31	415.5	33.2	111	1	LV2I_HUMAN	P01712 homo sapien
32	414.5	33.2	119	1	HV37_MOUSE	P01807 mus musculu
33	414.5	33.2	122	1	HV20_MOUSE	P01789 mus musculu
34	414	33.1	117	1	HV02_CANFA	P01785 canis famil
35	414	33.1	123	1	HV18_MOUSE	P01787 mus musculu
36	414	33.1	123	1	HV19_MOUSE	P01788 mus musculu
37	414	33.1	123	1	HV22_MOUSE	P01791 mus musculu
38	413	33.0	115	1	HV32_MOUSE	P01801 mus musculu
39	413	33.0	123	1	HV25_MOUSE	P01794 mus musculu
40	411	32.9	113	1	HV30_MOUSE	P01799 mus musculu
41	410.5	32.8	114	1	HV01_CANFA	P01784 canis famil
42	410	32.8	123	1	HV23_MOUSE	P01792 mus musculu
43	409	32.7	142	1	HV01_RAT	P01805 rattus norv
44	408	32.6	123	1	HV24_MOUSE	P01793 mus musculu
45	407.5	32.6	122	1	HV21_MOUSE	P01790 mus musculu

ALIGNMENTS

RESULT 1
HV3G_HUMAN
ID HV3G_HUMAN STANDARD; PRT; 122 AA.
AC P01768;
DT 21-JUL-1986 (Rel. 01, Created)
DT 21-JUL-1986 (Rel. 01, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Ig heavy chain V-III region CAM.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE.
RX MEDLINE=81013859; PubMed=6774332;
RA Lehman D.W., Putnam F.W.;
RT "Amino acid sequence of the variable region of a human mu chain:
RT location of a possible JH segment.";
RL Proc. Natl. Acad. Sci. U.S.A. 77:3239-3243(1980).
CC -!- MISCELLANEOUS: THIS MU CHAIN WAS ISOLATED FROM THE PLASMA OF A
CC PATIENT WITH MACROGLOBULINEMIA.
CC -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR PIR; A02051; M3HUAM.
DR HSSP; P01772; 2FB4.
DR GO; GO:0005576; C:extracellular; NAS.
DR GO; GO:0003823; F:antigen binding; NAS.
DR GO; GO:0006955; P:immune response; NAS.
DR InterPro; IPR007110; Ig-like.
DR InterPro; IPR003596; Ig_v.
DR Pfam; PF00047; ig; 1.
DR SMART; SM00406; IGv; 1.
DR PROSITE; PS50835; IG_LIKE; 1.
KW Immunoglobulin V region; Pyrrolidone carboxylic acid.
FT DOMAIN 1 112 IG-LIKE.
FT MOD_RES 1 1 * PYRROLIDONE CARBOXYLIC ACID.
FT NON_TER 122 122
SQ SEQUENCE 122 AA; 13668 MW; A42D0F17D252F1C2 CRC64;

Query Match 40.6%; Score 507.5; DB 1; Length 122;
Best Local Similarity 77.9%; Pred. No. 8.7e-32;
Matches 95; Conservative 13; Mismatches 7; Indels 7; Gaps 1;

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Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              ||:| |||||:|:|| |||||||||||||:|:| |||| |||||||||||:| :|||
Db          1 QVELVESGGGVVZPGRSLRLSCAASGFTFSNYAMHWVRQPPGKGLEWVAVISYBGBBKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD-------RYFDLWGRGTLVTV 113
              |:||||||||||:||:|||||||||||:|||||||        | |: ||:||||||
Db         61 ABSVKGRFTISRDBSKBTLYLQMNSLRAEBTAVYYCARDRPLYGBYRAFNYWGQGTLVTV 120

Qy        114 SS 115
              ||
Db        121 SS 122
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RESULT 2

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LV2K_HUMAN
ID   LV2K_HUMAN     STANDARD;      PRT;   112 AA.
AC   P04209;
DT   20-MAR-1987 (Rel. 04, Created)
DT   20-MAR-1987 (Rel. 04, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig lambda chain V-II region NIG-84.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=85204383; PubMed=3922791;
RA   Toncike H., Kametani F., Hoshi A., Shinoda T., Isobe T.;
RT   "Amino acid sequence of an amyloidogenic Bence Jones protein in
RT   myeloma-associated systemic amyloidosis.";
RL   FEBS Lett. 185:139-141(1985).
CC   -!- MISCELLANEOUS: THIS IS A BENCE-JONES PROTEIN ISOLATED FROM AN
CC       INDIVIDUAL WITH MYELOMA-ASSOCIATED SYSTEMIC AMYLOIDOSIS.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR   PIR; A01971; L2HUNG.
DR   HSSP; P01709; 2MCG.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region; Amyloid; Bence-Jones protein.
FT   DOMAIN        1    102       IG-LIKE.
FT   DISULFID     22     90       BY SIMILARITY.
FT   NON_TER     112    112
SQ   SEQUENCE   112 AA;  11581 MW;  988FEF363AE1E4F3 CRC64;

  Query Match             39.0%;  Score 488;  DB 1;  Length 112;
  Best Local Similarity   84.7%;  Pred. No. 2.3e-30;
  Matches   94;  Conservative   11;  Mismatches    4;  Indels    2;  Gaps    1;

Qy        131 QSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAPKLLIYDVSNRPSGI 190
              ||||||||||||||||||||||||:||:| |::|||||:||||||||||||::|||||
Db          1 QSALTQPASVSGSPGQSITISCTGTTSDVGGYDFVSWYQQHPGKAPKLLIYDVNSRPSGI 60

Qy        191 SNRFSGSKSGDTASLTISGLQAEDEADYYCSSF--ANSGPLFGGGTKVTVL 239
              ||||||||||:|||||||||||||||||||||    ||  :||||||::||
Db         61 SNRFSGSKSGNTASLTISGLQAEDEADYYCSSFTTTNSRAVFGGGTKLSVL 111


RESULT 3
HV3I_HUMAN
ID   HV3I_HUMAN     STANDARD;      PRT;   119 AA.
AC   P01770;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig heavy chain V-III region NIE.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=77070269; PubMed=826475;
RA   Ponstingl H., Hilschmann N.;
RT   "The rule of antibody structure. The primary structure of a
RT   monoclonal IgG1 immunoglobulin (myeloma protein Nie). III. The
RT   chymotryptic peptides of the H-chain, alignment of the tryptic
RT   peptides and discussion of the complete structure.";
RL   Hoppe-Seyler's Z. Physiol. Chem. 357:1571-1604(1976).
RN   [2]
RP   DISULFIDE BOND.
RX   MEDLINE=77070267; PubMed=1002129;
RA   Dreker L., Schwarz J., Reichel W., Hilschmann N.;
RT   "Rule of antibody structure. The primary structure of a monoclonal
RT   IgG1 immunoglobulin (myeloma protein Nie), I: Purification and
RT   characterization of the protein, the L- and H-chains, the
RT   cyanogen bromide cleavage products, and the disulfide bridges.";
RL   Hoppe-Seyler's Z. Physiol. Chem. 357:1515-1540(1976).
CC   -!- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM AN IGG1 MYELOMA
CC       PROTEIN.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR   PIR; A91668; G1HUNI.
DR   HSSP; P01772; 2FB4.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region; Pyrrolidone carboxylic acid.
FT   DOMAIN        1    112       IG-LIKE.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   DISULFID     22     96
FT   NON_TER     119    119
SQ   SEQUENCE   119 AA;  13242 MW;  C96935A6E55E165B CRC64;

  Query Match             38.2%;  Score 478;  DB 1;  Length 119;
  Best Local Similarity   77.3%;  Pred. No. 1.4e-29;
  Matches   92;  Conservative   12;  Mismatches   11;  Indels    4;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| :||||:|||| |||||||||||||| |:: |||||||||||||||:||:| :|:|
Db          1 QVQLVQSGGGVVQPGRSLRLSCAASGFTFSRYTIHWVRQAPGKGLEWVAVMSYBGBBKHY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----YFDLWGRGTLVTVSS 115
              |||| |||||||::|||||||| ||||| |||||||||| |    :|  ||:||||||||
Db         61 ADSVNGRFTISRNDSKNTLYLNMNSLRPEDTAVYYCARIRDTAMFFAHWGQGTLVTVSS 119


RESULT 4
HV3J_HUMAN
ID   HV3J_HUMAN     STANDARD;      PRT;   121 AA.
AC   P01771;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig heavy chain V-III region HIL.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=79124695; PubMed=420800;
RA   Chiu Y.-Y.H., Lopez de Castro J.A., Poljak R.J.;
RT   "Amino acid sequence of the VH region of human myeloma
RT   cryoimmunoglobulin IgG Hil.";
RL   Biochemistry 18:553-560(1979).
CC   -!- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM AN IGG1 MYELOMA
CC       PROTEIN.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR   PIR; A02054; G1HUHL.
DR   HSSP; P01772; 2FB4.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region; Pyrrolidone carboxylic acid.
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'T   DOMAIN        1    112       IG-LIKE.
'T   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
'T   NON_TER     121    121
;Q   SEQUENCE   121 AA;  13566 MW;  480FC53610EF5DAB CRC64;

  Query Match             37.8%;  Score 472;  DB 1;  Length 121;
  Best Local Similarity   75.2%;  Pred. No. 4e-29;
  Matches   91;  Conservative    9;  Mismatches   15;  Indels    6;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              ||:| ::|||:|||| |||||| |||||||:| | ||||||||||||||||| |:|| ||
Db          1 QVKLVQAGGGVVQPGRSLRLSCIASGFTFSNYGMHWVRQAPGKGLEWVAVIWYNGSRTYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR------YFDLWGRGTLVTVS 114
              |||||||||||||| |||::||||| |||||||||||        || ||:| |||||
Db         61 GDSVKGRFTISRDNSKRTLYMZMNSLRTEDTAVYYCARDPDILTAFSFDYWGQGVLVTVS 120

Qy        115 S 115
              |
Db        121 S 121


RESULT 5
LV2B_HUMAN
ID   LV2B_HUMAN     STANDARD;      PRT;   111 AA.
AC   P01705;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig lambda chain V-II region NEI.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=72233223; PubMed=5043326;
RA   Garver F.A., Hilschmann N.;
RT   "The primary structure of a monoclonal human lambda-type
RT   immunoglobulin L-chain of subgroup II (Bence-Jones protein NEI).";
RL   Eur. J. Biochem. 26:10-32(1972).
CC   -!- MISCELLANEOUS: This is a Bence-Jones protein.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR   PIR; A01970; L2HUNI.
DR   HSSP; P01709; 2MCG.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region; Bence-Jones protein; Glycoprotein;
KW   Pyrrolidone carboxylic acid.
FT   DOMAIN        1    106       IG-LIKE.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   DISULFID     22     90       BY SIMILARITY.
FT   CARBOHYD     96     96       N-LINKED (GLCNAC. . .).
FT   NON_TER     111    111
SQ   SEQUENCE   111 AA;  11591 MW;  AD6D156584D087EB CRC64;

  Query Match             37.5%;  Score 468.5;  DB 1;  Length 111;
  Best Local Similarity   81.8%;  Pred. No. 6.7e-29;
  Matches   90;  Conservative   11;  Mismatches    8;  Indels    1;  Gaps    1;

Qy        131 QSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAPKLLIYDVSNRPSGI 190
              |||||||||||||||||||||||:||:|:||:|||||| |||||||:||: : ||||:
Db          1 QSALTQPASVSGSPGQSITISCTGTTSDVGSYNFVSWYQQNPGKAPKLMIYEGNKRPSGV 60

Qy        191 SNRFSGSKSGDTASLTISGLQAEDEADYYCSSFA-NSGPLFGGGTKVTVL 239
              |||||||||| |||||||||| |||||||| |:| ||  :|||||:||||
Db         61 SNRFSGSKSGKTASLTISGLQVEDEADYYCCSYAGNSTRVFGGGTRVTVL 110


RESULT 6
LV2A_HUMAN
ID   LV2A_HUMAN     STANDARD;      PRT;   111 AA.
AC   P01704;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig lambda chain V-II region TOG.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=80048495; PubMed=500108;
RA   Nabeshima Y., Ikenaka T.;
RT   "Primary structure of cryo Bence-Jones protein (Tog) from the urine
RT   of a patient with IgD myeloma.";
RL   Mol. Immunol. 16:439-444(1979).
CC   -!- MISCELLANEOUS: This is a Bence-Jones protein.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR   PIR; A01969; L2HUTG.
DR   HSSP; P01709; 2MCG.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region; Bence-Jones protein;
KW   Pyrrolidone carboxylic acid.
FT   DOMAIN        1    100       IG-LIKE.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   DISULFID     22     90       BY SIMILARITY.
FT   NON_TER     111    111
SQ   SEQUENCE   111 AA;  11713 MW;  FD20AEF4CE5364E2 CRC64;

  Query Match             37.2%;  Score 465.5;  DB 1;  Length 111;
  Best Local Similarity   80.9%;  Pred. No. 1.1e-28;
  Matches   89;  Conservative   14;  Mismatches    6;  Indels    1;  Gaps    1;

Qy        131 QSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAPKLLIYDVSNRPSGI 190
              |||||||||| ||||||||||||::|||:|:|||||||||||||:||:||::||||:
Db          1 QSALTQPASVSASPGQSITISCTGTTNDIGSYSYVSWYQQYPGKAPKVLIFDVNSRPSGV 60

Qy        191 SNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGP-LFGGGTKVTVL 239
              |:|||||||:|||||||||||||||| |:|||:  ||  :||||| ||||
Db         61 SHRFSGSKSGNTASLTISGLQAEDEAHYFCSSYRTSGTIIFGGGTYVTVL 110


RESULT 7
HV3H_HUMAN
ID   HV3H_HUMAN     STANDARD;      PRT;   122 AA.
AC   P01769;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig heavy chain V-III region GA.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=74175307; PubMed=4208843;
RA   Florent G., Lehman D., Putnam F.W.;
RT   "The switch point in mu heavy chains of human IgM immunoglobulins.";
RL   Biochemistry 13:2482-2498(1974).
CC   -!- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM A WALDENSTROM'S
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CC       MACROGLOBULIN.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR   PIR; A02052; M3HUGA.
DR   HSSP; P01772; 2FB4.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region; Pyrrolidone carboxylic acid.
FT   DOMAIN        1    112       IG-LIKE.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   NON_TER     122    122
SQ   SEQUENCE   122 AA;  13166 MW;  74E5B6959E84100A CRC64;

  Query Match             37.0%;  Score 462.5;  DB 1;  Length 122;
  Best Local Similarity   68.9%;  Pred. No. 2.1e-28;
  Matches   84;  Conservative   19;  Mismatches   12;  Indels    7;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              ||:| :|||| |:|| |||||||||||:||:|:| ||||||||||:|::||||:| ::||
Db          1 QVZLVZSGGGAVZPGRSLRLSCAASGFSFSTYAMHWVRQAPGKGLZWLSVISYBGBBZYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRY-------FDLWGRGTLVTV 113
                | |||||||||||::||:|:||:|||||||:||||||||           |||| |||||:
Db         61 AASVKGRFTISRBBSKBTMYLEMNSLRAENTAVYYCARSGIALGSVAGTDYWGZGTLVTI 120

Qy        114 SS 115
              ||
Db        121 SS 122


RESULT 8
LV2D_HUMAN
ID   LV2D_HUMAN     STANDARD;      PRT;   111 AA.
AC   P01707;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig lambda chain V-II region TRO.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=80114123; PubMed=118915;
RA   Scholz R., Yang C., Hilschmann N.;
RT   "Rule of antibody structure. Primary structure of a human monoclonal
RT   IgAl-immunoglobulin (myeloma protein Tro). VI. Amino acid sequence of
RT   the L-chain, lambda-type, subgroup II.";
RL   Hoppe-Seyler's Z. Physiol. Chem. 360:1903-1918(1979).
CC   -!- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM A MYELOMA PROTEIN.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR   PIR; A01973; L2HUTR.
DR   HSSP; P01709; 2MCG.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region; Pyrrolidone carboxylic acid.
FT   DOMAIN        1    106       IG-LIKE.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   DISULFID     22     90       BY SIMILARITY.
FT   NON_TER     111    111
SQ   SEQUENCE   111 AA;  11561 MW;  99DC457A12E8F6E1 CRC64;

  Query Match             36.4%;  Score 454.5;  DB 1;  Length 111;
  Best Local Similarity   78.2%;  Pred. No. 7.6e-28;
  Matches   86;  Conservative   13;  Mismatches   10;  Indels    1;  Gaps    1;

Qy        131 QSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAPKLLIYDVSNRPSGI 190
              |||||| |||||||||:|||||||||||:|||| |||||:|||||||:|:||: ||||:
Db          1 QSALTQPRSVSGSPGQSVTISCTGTSSDVGAYNSVSWYQQHPGKAPKLMIFDVTKRPSGV 60

Qy        191 SNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANS-GPLFGGGTKVTVL 239
                :| |||||||||||||||:|:||||||| |:|     :||||||:|||
Db         61 PDRLSGSKSGDTASLTISGLRADDEADYYCCSYAGRYSVIFGGGTKLTVL 110


RESULT 9
HV3K_HUMAN
ID   HV3K_HUMAN     STANDARD;      PRT;   126 AA.
AC   P01772;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig heavy chain V-III region KOL.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE, AND DISULFIDE BONDS.
RX   MEDLINE=83289131; PubMed=6884994;
RA   Schmidt W.E., Jung H.-D., Palm W., Hilschmann N.;
RT   "Three-dimensional structure determination of antibodies. Primary
RT   structure of crystallized monoclonal immunoglobulin IgG1 KOL, I.";
RL   Hoppe-Seyler's Z. Physiol. Chem. 364:713-747(1983).
RN   [2]
RP   X-RAY CRYSTALLOGRAPHY (1.9 ANGSTROMS).
RX   MEDLINE=81072295; PubMed=7441755;
RA   Marquart M., Deisenhofer J., Huber R., Palm W.;
RT   "Crystallographic refinement and atomic models of the intact
RT   immunoglobulin molecule Kol and its antigen-binding fragment at 3.0 A
RT   and 1.0-A resolution.";
RL   J. Mol. Biol. 141:369-391(1980).
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR   PIR; A02055; G1HUKL.
DR   PDB; 2FB4; 12-JUL-89.
DR   PDB; 2IG2; 12-JUL-89.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region; 3D-structure; Pyrrolidone carboxylic acid.
FT   DOMAIN        1    112       IG-LIKE.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   DISULFID     22     96
FT   DISULFID    105    110
FT   STRAND        3      7
FT   STRAND       11     12
FT   TURN         14     15
FT   STRAND       18     25
FT   HELIX        29     31
FT   STRAND       34     39
FT   TURN         41     42
FT   STRAND       45     51
FT   TURN         53     54
FT   STRAND       58     60
FT   HELIX        62     64
FT   STRAND       65     65
FT   TURN         66     67
FT   STRAND       68     73
FT   TURN         74     77
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FT   STRAND       78     83
FT   HELIX        88     90
FT   STRAND       92     99
FT   STRAND      106    106
FT   TURN        107    108
FT   STRAND      109    109
FT   STRAND      113    116
FT   STRAND      120    124
FT   NON_TER     126    126
SQ   SEQUENCE   126 AA;  13718 MW;  E4D71B52B16F8776 CRC64;

  Query Match             36.3%;  Score 453.5;  DB 1;  Length 126;
  Best Local Similarity   71.4%;  Pred. No. 1e-27;
  Matches   90;  Conservative   12;  Mismatches   13;  Indels   11;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| ||||||:|||| ||||||::||| ||||:| |||||||||||||||:|  |||:::|
Db          1 QVQLVESGGGVVQPGRSLRLSCSSSGFIFSSYAMYWVRQAPGKGLEWVAIIWDDGSDQHY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYF----------DLWGRGT 109
              |||||||||||||||||:|||:||| ||| ||:|||| | ||:||
Db         61 ADSVKGRFTISRDNSKNTLFLQMDSLRPEDTGVYFCARDGGHGFCSSASCFGPDYWGQGT 120

Qy        110 LVTVSS 115
              |||||
Db        121 PVTVSS 126


RESULT 10
HV3B_HUMAN
ID   HV3B_HUMAN     STANDARD;      PRT;   114 AA.
AC   P01763;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig heavy chain V-III region WEA.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=83273707; PubMed=6410398;
RA   Goni F., Frangione B.;
RT   "Amino acid sequence of the Fv region of a human monoclonal IgM
RT   (protein WEA) with antibody activity against 3,4-pyruvylated
RT   galactose in Klebsiella polysaccharides K30 and K33.";
RL   Proc. Natl. Acad. Sci. U.S.A. 80:4837-4841(1983).
CC   -!- MISCELLANEOUS: THIS CHAIN WAS OBTAINED FROM A MONOCLONAL ANTIBODY
CC       AGAINST 3,4-PYRUVYLATED GALACTOSE AND ISOLATED FROM A PATIENT WITH
CC       WALDENSTROM'S MACROGLOBULINEMIA.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR   PIR; A02046; M3HUWE.
DR   HSSP; P01772; 2FB4.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region; Pyrrolidone carboxylic acid.
FT   DOMAIN       1    112       IG-LIKE.
FT   MOD_RES      1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   NON_TER    114    114
SQ   SEQUENCE   114 AA;  12256 MW;  D88294FB418A07B7 CRC64;

  Query Match             36.2%;  Score 452.5;  DB 1;  Length 114;
  Best Local Similarity   76.5%;  Pred. No. 1.1e-27;
  Matches   88;  Conservative   13;  Mismatches   13;  Indels    1;  Gaps    1;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              |||| :|||||:|||||||||:|||||||:  |:||||||||||:: |   ||  ||
Db          1 QVQLVDSGGGLVEPGGSLRLSCSASGFTFSANDMNWVRQAPGKGLEWLSFIGGSGSTIYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDRYFDLWGRGTLVTVSS 115
              ||||||||||||::|||:|||||:|||||||||||||||    : ||:||||||||
Db         61 ADSVKGRFTISRNBSKNSLYLQMSSLRAEDTAVYYCARGWLLN-WGQGTLVTVSS 114


RESULT 11
HV3C_HUMAN
ID   HV3C_HUMAN     STANDARD;      PRT;   117 AA.
AC   P01764;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig heavy chain V-III region VH26 precursor.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=81101090; PubMed=6450418;
RA   Matthyssens G., Rabbitts T.H.;
RT   "Structure and multiplicity of genes for the human immunoglobulin
RT   heavy chain variable region.";
RL   Proc. Natl. Acad. Sci. U.S.A. 77:6561-6565(1980).
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; J00236; AAA53516.1; -.
DR   EMBL; M35415; AAA58735.1; -.
DR   PIR; A02047; H3HU26.
DR   PDB; 1HOU; 23-DEC-99.
DR   Genew; HGNC:5545; IGHV@.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region; Signal; 3D-structure.
FT   SIGNAL       1     19
FT   CHAIN       20    117       IG HEAVY CHAIN V-III REGION VH26.
FT   DOMAIN      20   >117       IG-LIKE.
FT   NON_TER    117    117
SQ   SEQUENCE   117 AA;  12582 MW;  E826733F1A3CB0F1 CRC64;

  Query Match             36.2%;  Score 452;  DB 1;  Length 117;
  Best Local Similarity   87.8%;  Pred. No. 1.2e-27;
  Matches   86;  Conservative    5;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||||||||||||||||||||||:|||||||||||||: ||  | : ||
Db         20 EVQLLESGGGLVQPGGSLRLSCAASGFTFSSYAMSWVRQAPGKGLEWVSAISGSGGSTYY 79

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR 98
              ||||||||||||||||||||||||||||||||||||:
Db         80 GDSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCAK 117


RESULT 12
LV2H_HUMAN
ID   LV2H_HUMAN     STANDARD;      PRT;   111 AA.
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AC   P01711;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig lambda chain V-II region VIL.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=71215142; PubMed=5087637;
RA   Ponstingl H., Hilschmann N.;
RT   "Structural rule of antibodies. Complete primary structure of a
RT   monoclonal immunoglobin L chain of the lambda type, subgroup II
RT   (Bence Jones protein VIL).";
RL   Hoppe-Seyler's Z. Physiol. Chem. 352:859-877(1971).
CC   -!- MISCELLANEOUS: This is a Bence-Jones protein.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR   PIR; A01977; L2HUVL.
DR   HSSP; P01709; 2MCG.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region; Bence-Jones protein.
FT   DOMAIN        1    100       IG-LIKE.
FT   DISULFID     22     90       BY SIMILARITY.
FT   NON_TER     111    111
SQ   SEQUENCE   111 AA;  11445 MW;  3913736B3EF367E0 CRC64;

  Query Match             36.0%;  Score 449.5;  DB 1;  Length 111;
  Best Local Similarity   79.8%;  Pred. No. 1.8e-27;
  Matches   87;  Conservative   12;  Mismatches    9;  Indels    1;  Gaps    1;

Qy        132 SALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAPKLLIYDVSNRPSGIS 191
              |||||||||||| |||||||||||||:| ||||||:||:|| ||||:| :| ||||||:|
Db          2 SALTQPASVSGSLGQSITISCTGTSSDVGGYNYVSWFQQHPGTAPKLIISEVRNRPSGVS 61

Qy        192 NRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGP-LFGGGTKVTVL 239
              :|||||| :|||||||||||||||||||||: :|   :||||||:|||
Db         62 DRFSGSKSANTASLTISGLQAEDEADYYCSSYTSSNSVVFGGGTKLTVL 110


RESULT 13
HV3D_HUMAN
ID   HV3D_HUMAN     STANDARD;      PRT;   115 AA.
AC   P01765;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig heavy chain V-III region TIL.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=78005528; PubMed=409716;
RA   Wang A.-C., Wang I.Y., Fudenberg H.H.;
RT   "Immunoglobulin structure and genetics. Identity between variable
RT   regions of a mu and a gamma2 chain.";
RL   J. Biol. Chem. 252:7192-7199(1977).
CC   -!- MISCELLANEOUS: THE SEQUENCES OF THE V REGIONS OF THE HEAVY CHAINS
CC       OF IGM AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL
CC       GAMMOPATHY ARE IDENTICAL. THEIR LIGHT CHAINS ARE APPARENTLY ALSO
CC       IDENTICAL.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR   PIR; A02048; H3HUTL.
DR   HSSP; P01772; 2FB4.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region.
FT   DOMAIN        1    108       IG-LIKE.
FT   NON_TER     115    115
SQ   SEQUENCE   115 AA;  12356 MW;  4DCC67D179F62326 CRC64;

  Query Match             35.5%;  Score 444;  DB 1;  Length 115;
  Best Local Similarity   73.9%;  Pred. No. 4.8e-27;
  Matches   88;  Conservative   10;  Mismatches   13;  Indels    8;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |||||||||||||||||||||||:| |||||||||||:|| |     :: |
Db          1 EVQLLESGGGLVQPGGSLRLSCAASGFTFSTYVMSWVRQAPGKGLZWVGAIZGLSVSZSY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDR----YFDLWGRGTLVTVSS 115
              |:|||||||||:|||     |||||||||||||||: :    ||: || ||||||||
Db         61 ABSVKGRFTISRDDSKNT----MNSLRAEDTAVYYCAKGKVSAYYFBYWGZGTLVTVSS 115


RESULT 14
HV3F_HUMAN
ID   HV3F_HUMAN     STANDARD;      PRT;   115 AA.
AC   P01767;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig heavy chain V-III region BUT.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=78137069; PubMed=416441;
RA   Torano A., Putnam F.W.;
RT   "Complete amino acid sequence of the alpha 2 heavy chain of a human
RT   IgA2 immunoglobulin of the A2m (2) allotype.";
RL   Proc. Natl. Acad. Sci. U.S.A. 75:966-969(1978).
CC   -!- MISCELLANEOUS: THE SEQUENCE OF THE ALPHA-2, A2M(2) ALLOTYPE, C
CC       REGION OF THIS MYELOMA PROTEIN IS ALSO GIVEN.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR   PIR; A02050; A2HUBU.
DR   HSSP; P01789; 1MCP.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region.
FT   DOMAIN        1    111       IG-LIKE.
FT   NON_TER     115    115
SQ   SEQUENCE   115 AA;  12379 MW;  208876A7DF52DCF4 CRC64;

  Query Match             35.4%;  Score 443;  DB 1;  Length 115;
  Best Local Similarity   75.0%;  Pred. No. 5.8e-27;
  Matches   87;  Conservative   13;  Mismatches   14;  Indels    2;  Gaps    2;

Qy          1 QVQLQESGGGLVQPGGSLRLSCAASGFTFSSYSMSWVRQAPGKGLEWVAVISYDGSNKYY 60
              :||| |:||||:|||||||||||||||| | :||||||||||| |:||: | | |   ||
Db          1 EVQLVETGGGLIQPGGSLRLSCAASGFTVSBHSMSWVRQAPGKALZWVSAI-YRGGTTYY 59

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARD-RYFDLWGRGTLVTVSS 115
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                ||||||||||||||:|::|:||||:|||||||||||||||      |:|:|| |||||
Db          60 ADSVKGRFTISRDDSRBTVYLQMBSLRAEDTAVYYCARDLAAARLFGKGTTVTVSS 115


RESULT 15
LV2F_HUMAN
ID   LV2F_HUMAN     STANDARD;      PRT;   111 AA.
AC   P01709;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Ig lambda chain V-II region MGC.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=75013804; PubMed=4415202;
RA   Fett J.W., Deutsch H.F.;
RT   "Primary structure of the Mcg lambda chain.";
RL   Biochemistry 13:4102-4114(1974).
RN   [2]
RP   LAMBDA CHAIN GENES.
RX   MEDLINE=76093781; PubMed=812801;
RA   Fett J.W., Deutsch H.F.;
RT   "A new lambda-chain gene.";
RL   Immunochemistry 12:643-652(1975).
RN   [3]
RP   X-RAY CRYSTALLOGRAPHY (2.3 ANGSTROMS).
RA   Edmundson A.B., Ely K.R., Abola E.E., Schiffer M.,
RA   Panagiotopoulos N.;
RT   "Rotational allomerism and divergent evolution of domains in
RT   immunoglobulin light chains.";
RL   Biochemistry 14:3953-3961(1975).
RN   [4]
RP   X-RAY CRYSTALLOGRAPHY.
RX   MEDLINE=90133913; PubMed=2515285;
RA   Ely K.R., Herron J.N., Harker M., Edmundson A.B.;
RT   "Three-dimensional structure of a light chain dimer crystallized in
RT   water. Conformational flexibility of a molecule in two crystal
RT   forms.";
RL   J. Mol. Biol. 210:601-615(1989).
CC   -!- MISCELLANEOUS: This is a Bence-Jones protein.
CC   -!- MISCELLANEOUS: THE MCG-TYPE C REGION APPEARS TO BE CORRELATED WITH
CC       A VERY UNUSUAL V-REGION SUBSTITUTION, 103-THR ABOVE FOR GLY,
CC       SUGGESTING THAT THE V-C JOINING MECHANISM IS NOT ALWAYS RANDOM.
CC   -!- MISCELLANEOUS: THE C REGION OF THIS CHAIN HAS THE KERN+ AND MCG+
CC       MARKERS.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like domain.
DR   PIR; A90381; L2HUMC.
DR   PDB; 2MCG; 15-JUL-92.
DR   PDB; 1A8J; 17-JUN-98.
DR   PDB; 1DCL; 15-MAY-97.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0003823; F:antigen binding; NAS.
DR   GO; GO:0006955; P:immune response; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin V region; Bence-Jones protein; 3D-structure;
KW   Pyrrolidone carboxylic acid.
FT   DOMAIN        1    108       IG-LIKE.
FT   MOD_RES       1      1       PYRROLIDONE CARBOXYLIC ACID.
FT   DISULFID     22     90       BY SIMILARITY.
FT   STRAND        5      5
FT   STRAND       10     12
FT   STRAND       18     23
FT   TURN         26     32
FT   STRAND       36     40
FT   TURN         42     43
FT   STRAND       50     51
FT   TURN         52     54
FT   STRAND       55     55
FT   TURN         62     63
FT   STRAND       66     68
FT   STRAND       72     77
FT   HELIX        82     84
FT   STRAND       86     93
FT   STRAND       99    101
FT   STRAND      105    109
FT   NON_TER     111    111
SQ   SEQUENCE   111 AA;  11558 MW;  7CC1D6E2FA3377BA CRC64;

  Query Match             35.2%;  Score 439.5;  DB 1;  Length 111;
  Best Local Similarity   76.4%;  Pred. No. 1e-26;
  Matches   84;  Conservative   13;  Mismatches   12;  Indels    1;  Gaps    1;

Qy        131 QSALTQPASVSGSPGQSITISCTGTSSDIGAYNYVSWYQQYPGKAPKLLIYDVSNRPSGI 190
              ||||||| | ||| |||:|||||||||:| |||||||||: |||||::||:|: ||||:
Db          1 QSALTQPPSASGSLGQSVTISCTGTSSDVGGYNYVSWYQQHAGKAPKVIIYEVNKRPSGV 60

Qy        191 SNRFSGSKSGDTASLTISGLQAEDEADYYCSSFANSGP-LFGGGTKVTVL 239
              :||||||||:|||||:|||||||||||||||:  |   :|| |||||||
Db         61 PDRFSGSKSGNTASLTVSGLQAEDEADYYCSSYEGSDNFVFGTGTKVTVL 110


Search completed: March 15, 2004, 07:27:49
Job time : 18 secs
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